

CHILTON'S

# MOTOR AGE

FEBRUARY 1958

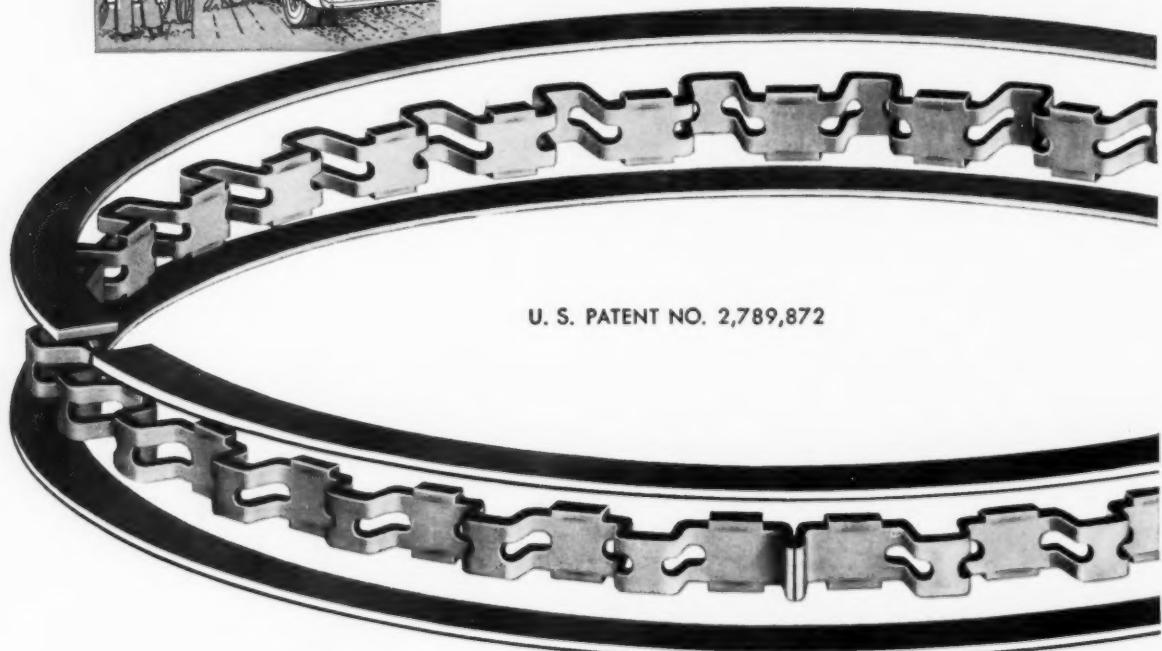


The HIGHWAY PROGRAM and YOUR BUSINESS

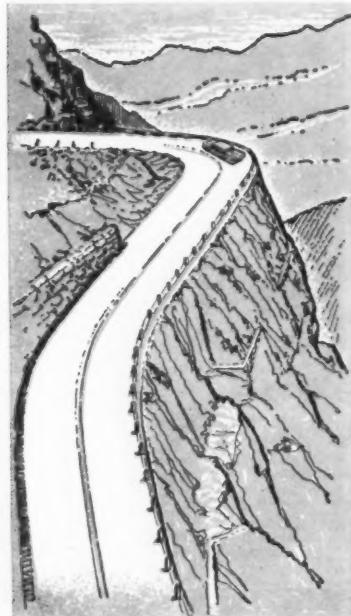
See Page 37



## Sealed Power's NEW STAINLESS STEEL OIL RING



U. S. PATENT NO. 2,789,872



**WAS PROVED AND APPROVED  
AROUND THE WORLD  
WITH FORD**

Deserts—mountains—rutted roads—sandy trails—heat—cold—great cities—tiny villages—through all these around the globe, the 1958 Ford was tested—and came through with flying colors.

Also triumphant in the Ford engine were new stainless steel oil rings and associated compression rings by Sealed Power—setting their own records for performance, reliability and economy—the SEALED POWER SS-50U does things no other ring can do.

**SEALED POWER CORPORATION  
MUSKEGON, MICHIGAN**

SECRET SERVICE TIPS by SHERLOCK McKANICK



## the mystery of the rattlesnake in the regulator

Watch out for his bite... it costs money!

YOU'VE JUST INSTALLED a new voltage regulator on a car. You've checked all connections and started the engine, and then . . . R-R-R-R-R-R!

Where did that rattlesnake come from?

"Reach for Blue Streak Bulletin 69-52 as fast as you can", advises Sherlock McCanick, dean of Blue Streak ignition experts, "that rattler is in the regulator—and unless you get rid of it, you're going to do the job over

again 'on the house.' The rattling sound is a warning that you didn't polarize correctly—or you forgot to polarize at all!

*Here's the help you need:* Write for Blue Streak Bulletin 69-52 which gives you dozens of clues to help pinpoint regulator trouble in seconds, and shows how to stop it fast. Do it right now . . . Keep that "rattlesnake" from putting the bite on your pocket-book!

Be A Sherlock McCanick!

You, too, can save yourself costly guessing, discouraging delay, expensive time by becoming a registered Blue Streak dealer. You get the entire file of Secret Service Tips and continuing follow-ups. 40,000 Blue Streak mechanics use them to track down trouble fast.



**Blue Streak**  
IGNITION PARTS

precision engineered for replacement

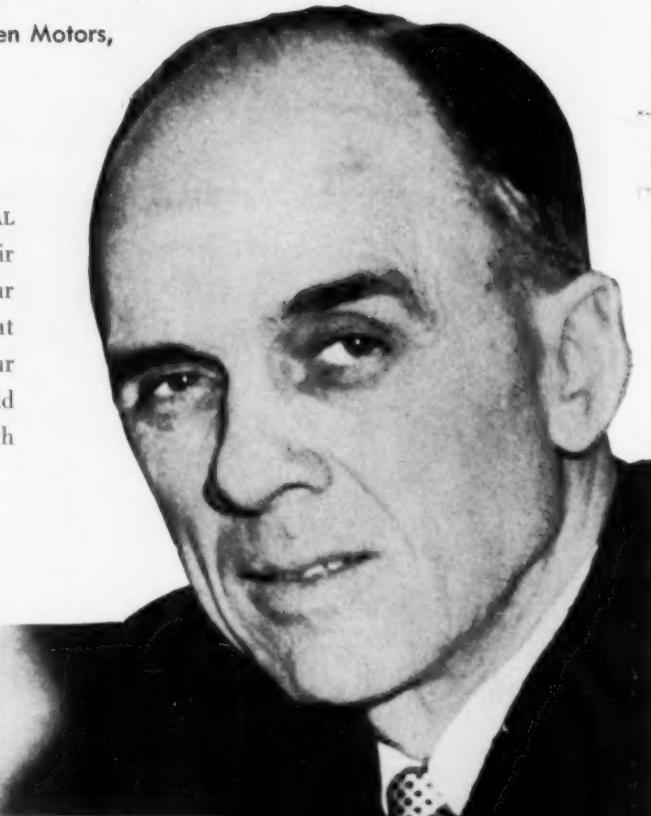
STANDARD MOTOR PRODUCTS, INC., 37-18 Northern Blvd., Long Island City 1, N. Y.

Chilton's MOTOR AGE, FEBRUARY, 1958

# “...close cooperation has really helped increase our sales”

says **JAMES G. KNOX**, president, Knox-Jensen Motors,  
Dodge-Plymouth dealer,  
Lawton, Oklahoma.

“Since our early days in business COMMERCIAL CREDIT PLAN has been our house plan. Their close cooperation has really helped increase our sales over the years. Fast credit checks prevent lost sales and their business-like handling of our customers after deals are closed helps build repeat business. Our seven years' experience with COMMERCIAL CREDIT has been good.”



## *Commercial Credit dealers are successful dealers*

Write or call our nearest office for complete information on the benefits of COMMERCIAL CREDIT PLAN. Why not do it today?



A service offered through subsidiaries of the Commercial Credit Company, Baltimore . . . Capital and Surplus over \$200,000,000 . . . offices in principal cities of the United States and Canada.

**NOW! Raybestos**

# FORMULA 48 HEAVY DUTY BRAKE FLUID



## CHECK THESE VITAL PERFORMANCE FEATURES OF FORMULA 48:

- Assures efficient operation in the high heat ranges developed in brakes on today's cars
- Meets all requirements in every state
- Thoroughly lubricates all parts of the hydraulic system
- Causes no rubber cup or hose deterioration
- Retains all chemical properties throughout long use
- Superior even in climates with sub-zero temperatures
- Compatible with other quality brake fluids
- Prevents metal parts from rusting or corroding
- Forms no gummy residue
- Will not evaporate or boil away in operation

A PRODUCT OF

**Raybestos**  
AMERICA'S BIGGEST SELLING FRICTION MATERIAL



RAYBESTOS DIVISION of Raybestos-Manhattan, Inc.,  
BRIDGEPORT, CONN.

RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks  
Brake Fluid • Clutch Facings • Industrial Rubber • Mechanical  
Packings • Asbestos Textiles • Engineered Plastics • Sintered  
Metal Products • Rubber Covered Equipment • Laundry Pads  
and Covers • Abrasive and Diamond Wheels • Industrial Ad-  
hesives • Bowling Balls

**FLASH! Don't fail to see the new film "Brakes for 1958" at the Raybestos Brake Service Clinic**  
A technical color sound motion picture showing details on: 1958 brake changes • New self-adjusting brakes • Effect of 14 in. wheels on brakes  
Center-plane brakes • Write to Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport 2, Conn., for a showing

CHILTON'S

# MOTOR AGE

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FEBRUARY 1958

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## RUSSELL W. CASE, JR., Publisher

Charles W. Hevner, Asst. to Publisher  
E. H. Miller, Advertising Manager  
E. W. Hevner, Circulation Manager  
Joseph P. Jennings, Research Manager

Address Mail to Motor Age  
Chestnut & 56th Sts., Phila. 39, Pa.  
Phone: SHerwood 8-2000

### REGIONAL MANAGERS

#### CHICAGO 1, ILLINOIS

Howard R. Zeuschel—William R. Fauber  
Suite 418  
360 North Michigan Ave.  
Phone RANDolph 6-2166

#### CLEVELAND 15, OHIO

Ben E. Ball—Duane Jones  
930 B. F. Keith Bldg.  
Euclid Ave. and E. 17th St.  
Phone SUperior 1-2860

#### DALLAS 1, TEXAS

William J. Smyth  
909 Mercantile Securities Bldg.  
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#### DETROIT 2, MICHIGAN

Philip Streich—Duane Jones  
1015 Stephenson Bldg.  
Phone TRinity 5-2090

#### LOS ANGELES 57, CALIF.

L. H. Jackson  
198 S. Alvarado St.  
Phone DUnkirk 7-4337

#### NEW YORK 17, N.Y.

Kip Howe—Edwin H. Shaffer  
100 E. 42nd St.  
Phone OXFORD 7-3400

#### SAN FRANCISCO 3, CALIF.

Frank W. McKenzie  
1355 Market St.  
Phone UNderhill 1-9737

#### WASHINGTON EDITORIAL OFFICE

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FOR INSTALLING VALVE SEAT RINGS

The Biggest  
Seller



THE FIRST . . . and still the MOST POPULAR, MOST PRACTICAL, SIMPLEST, MOST UNIVERSAL tool of its kind made. EVERLASTING . . . the first tools made over 25 years ago are still in service.

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FILT-O-REG is the No. 1 choice of leading Carburetor Specialists to eliminate over-pressure problems on today's multi-barrel carburetor and automatic transmission equipped autos. Prevents flooding, stalling, vapor lock. Increases gas mileage. Over 1/2 million FILT-O-REGS installed. STOCK & SELL FILT-O-REGS with all your tune-up jobs.

ASK YOUR LEADING JOBBER!      #317 Vapor Lock Bulletin  
Or write for free bulletins:      #302 Over-Pressure Bulletin

ALONDRA SALES, INC., LOS ANGELES 19, CALIF.

Have You Mailed  
Your Membership  
Postcard?

See Page 69

# 12 OIL FILLED COILS

EACH ENGINEERED FOR THE  
INDIVIDUAL 6V. OR 12V. SYSTEM

For maximum Coil efficiency and longer Contact life, the Coil primary, secondary and core must be balanced to the Distributor cam and cam dwell. Each ECHLIN Oil Filled Coil is precisely designed for use in the specific system for which it is catalogued.

YOU CAN'T  
BUY A BETTER  
COIL AT ANY  
PRICE!

OIL RESISTANT  
BUNA N GASKETS  
SOLDERED PRIMARY AND  
SECONDARY CONNECTION  
BUNA N "O" RING SEAL  
LAMINATED CORE  
INSULATION-OIL  
IMREGNATED UNDER  
HEAT AND VACUUM  
SECONDARY WINDING  
PRIMARY WINDING  
SEAMLESS DRAWN  
STEEL CASE  
PHENOLIC BASE  
INSULATOR WITH OIL  
CIRCULATING PASSAGES



ADVERTISED IN  
The Saturday Evening  
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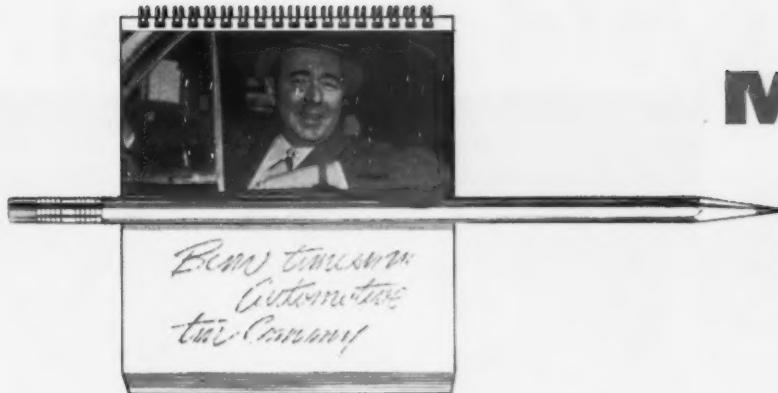


# ECHLIN



*Ignition*  
CONTACTS  
COILS • CONDENSERS  
& OTHER AUTOMOTIVE  
ELECTRICAL PARTS

ECHLIN MANUFACTURING COMPANY • NEW HAVEN 5, CONN. • U.S.A.  
ECHLIN IGNITION OF CANADA LTD. • 56 CONNIE ST. • TORONTO 15, CANADA



# MOTOR AGE MEMO

## More about the Automotive Service League

LAST month Motor Age announced with marked enthusiasm the formation of the Automotive Service League. That enthusiasm has changed to fire and ardor as return post cards fill our mail. These post cards speed on to members of the League their Membership Certificate.

If you haven't done so, you, too, can have your certificate to display on the wall of your office or shop. There's a postage-free return card on Page 69 for your use. Display your certificate where your customers can see that you have qualified for membership in the Automotive Service League.

This is a new and unusual organization. It is not a trade association, as such. We support the efforts of all honest trade groups who serve car dealers, independent garage owners, service stations, manufacturers and wholesalers. The League requires no dues, fees or commitments.

### *What All This Means to You*

As a member of the League, you and Motor Age are joined in a determined, continuing effort to make more and better service work available to the motoring public and to build more profitable business for qualified automotive service outlets.

Toward this end, Motor Age will supply you each month with the latest information about automotive service work—covering the "three M's"—mechanical, merchandising and management.

All of us in the automotive service industry are aware of the importance of doing good service work at fair prices. All too often car owners doubt whether their cars have been well serviced and whether they have been charged honestly.

The Automotive Service League certificate on your wall is a recognition of which you can be proud and which will increase your customers' confidence in you. Be sure to mail the return post card which appears on Page 69 of this issue.

### *"The Automobile Dealer"*

A new book has reached this desk, "The Automobile Dealer", by Martin H. Bury, a well-established Buick dealer of Philadelphia. ". . . written in the hope that it might help to remedy the illnesses and evils of a great industry and that it might aid dealers in regaining and retaining public confidence."

The book points out that dealers are beset with problems; they are suffering from real and imaginary ills. Each of these can be corrected by proper diagnosis and the application of intelligently-applied remedies.

Contrary to some rampant thinking of the day, Mr. Bury points out that dealer problems will not be solved by legislation, manufacturers' policies, economic conditions or miracles. Their solution lies in the adoption of sound merchandising methods by the dealers themselves.

In a country that has prospered through the doctrine of free enterprise, the author points out, the desire for legislative relief is wishful thinking. And most of the proposed changes in manufacturers' policies would be considered restraint of trade.

Faithfully yours,

# Like a weld in steel...



**Wagner Lockheed**  
*...the best known name in brake service*

LOCKHEED HYDRAULIC BRAKE PARTS, FLUID and BRAKE LINING • AIR HORNS • AIR BRAKES • TACHOGRAPH

# Wagner® Lockheed EXCHANGE BRAKE SHOES

## are properly bonded to hold lining to shoe



You never need to feel afraid that the lining on Wagner Exchange Shoes is going to pull off. The Wagner method of applying lining to shoes makes sure that the two are *properly* bonded—holding the lining to the shoe as securely as the weld in fabricated steel.

YOU take full advantage of mass production facilities when you exchange shoes. The slow, tedious part of the relining job—delining and relining the shoes—is done for you. In not having to do this work in your shop, you save time on every job... speed turnover... and gain time for other profitable work.

Under the Wagner plan you use clean, inspected, completely reconditioned shoes equipped with the right

premium quality lining to insure customer satisfaction—and the price enables you to make a substantial profit.

**WAGNER EXCHANGE BRAKE SHOE SETS** have lining "bonded-on" or "riveted-on" according to highest factory standards. Sets are available for all passenger cars and some light trucks with both standard and oversize lining thicknesses.

**COMPLETE WAGNER LINE** includes Wagner Lockheed Brake Parts, Fluid and Lining to service all makes and models of vehicles. In exchange shoes, you have a choice of "WEB" COMAX BONDED SETS, "WB" SETS BONDED WITH "WP" LINING. Wagner Brake Lining is available in rolls, sets, blocks and slabs to provide complete coverage for all vehicles. For details, consult nearest supplier of Wagner Lockheed Products, or use coupon requesting FREE copy of Catalog BU-579.



ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES

Chilton's MOTOR AGE, FEBRUARY, 1958

WB594

**Wagner Electric Corporation**  
6498 PLYMOUTH AVENUE, ST. LOUIS 14, MO., U.S.A.  
(Branches in principal cities in U.S. and in Canada)

Please mail me a free copy of Catalog BU-579 covering  
your complete line of bonded shoe sets.

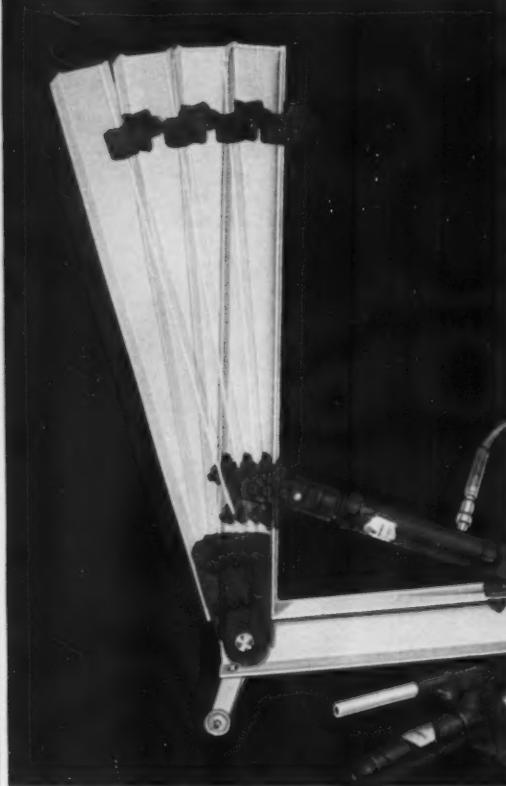
NAME \_\_\_\_\_

FIRM NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY & STATE \_\_\_\_\_

# Revolutionary auto-



See how Pull-Dozer pulls out damage at exact point of impact . . . from outside the car!

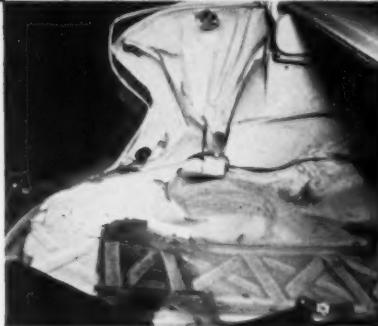
## Porto-Power PULL-DOZER

### FEATURES:

- Famous Porto-Power hydraulic ram and pump does the hard work for you.
- Portable! Lightweight aluminum alloy construction. Now you can bring the tool to the work!
- Lets you apply straight-line pull at exact point of impact . . . from outside the car!
- Safe! You control it remotely. Eliminates injury risk!
- Complete with all attachments to let you pull from all around the car — even 1958's.

### Budget-priced mechanical Pull-Dozer features:

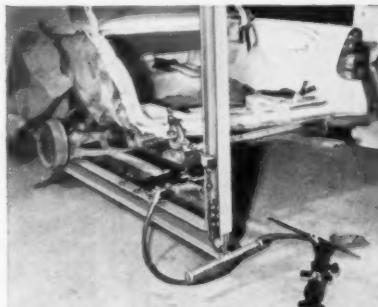
- Low, low priced . . . any body shop can afford one!
- Rugged tubular steel construction. Easily portable!
- Applies straight-line pull at exact point of impact! Also equipped for pushing!
- Complete with all attachments for pulling all around the car!



1. Photo shows damaged trunk area on a late model Chevrolet. Pull-Dozer ready to cut time, boost profits on this job.



2. A fast clamp hook-up on inner panel of car rear-quarter panel relieves stress on buckled-up trunk floor.



3. Next pull — at same angle of damage — brings trunk floor back toward original shape. New "C" clamp allows set-up changes in seconds.



4. Trunk floor back to near normal — heavy crease pulled out in minutes. Hammering and dollying under tension restores floor to original shape.

Watch for more big Porto-Power news coming from

# BLACKHAWK®

BLACKHAWK MFG. CO., MILWAUKEE 46, WISCONSIN



# body repair method!

# DOZERS



## Use a PULL-DOZER for 14 days. You'll find it safe, easy to use—the answer to your modern body repair problems!



"Cuts my hours way down — saves me trouble on late-model car bodies," says BERT PFAFF, Brownell's Body Shop, Milwaukee.



"No more pulling from poles and floor rings for me!" says LAWRENCE SMITH, Allis Autobody, West Allis, Wis.

"I've used Porto-Power Pull-Dozer and I've seen what it can do. Pulls damage straight out from outside the body. I don't have to rip out upholstery — waste time figuring out fancy 2 and 3-jack setups . . . look for good anchoring points. Blackhawk's new Pull-Dozer is a real time and labor saver. It's making money for me like nothing else can!"

"I just fixed a busted-up trunk section on a '57 DeSoto and made a *good profit* doing it! Pull-Dozer made the difference. Before I would have had to drive away from an anchor ring or pole. Now I can tension with Pull-Dozer and dolly metal as I go. It's neat, clean, safe, fast. I take the tool to the job. I've landed more jobs with Pull-Dozer! There's no denying it's a dandy!"

### TRY PULL-DOZER! Use it in your shop 14 days! Absolutely no obligation!

#### FILL IN AND MAIL COUPON BELOW!

Get a Pull-Dozer in your shop soon — for 14 days! Try it! Profit from it! It won't cost you a cent. Your jobber will make purchase arrangements or pick Pull-Dozer up. Either way you just can't lose. Don't wait . . . don't attempt to repair modern bodies without a modern Pull-Dozer!



#### BLACKHAWK MFG. CO.

Dept. P-628 W. Rogers St., Milwaukee 46, Wis.

Rush the Pull-Dozer model I have checked below to my shop! I understand I can use it for 14 days . . . without obligation!

- Porto-Power hydraulic Pull-Dozer
- Budget-priced mechanical Pull-Dozer
- Free Pull-Dozer Owner's Manual-Catalog

NAME ..... TITLE .....

COMPANY .....

ADDRESS .....

CITY ..... ZONE ..... STATE .....



## Primer-Surfacer sanding race shows how to get jobs out faster with less labor!

To save costly shop time, test the sanding speed of your primer-surfacer. You'll get fast, easy sanding with no tearing or pulling when you use Du Pont Hi-Speed Lacquer-Type Primer-Surfacer. It actually gives the *fastest* sanding that can be obtained without sacrificing other important features. And what are these other features? Fast filling, fast drying, plus beautiful color holdout for high gloss with less rubbing. You'd save with Hi-Speed Primer-Surfacer even if it cost more. But since it reduces 2 to 1 (1 gal. gives 3 at the gun), it costs *less* than many so-called "bargain" primers. You save money with Du Pont Hi-Speed Primer-Surfacer every time!

Fast-drying  
Easy-sanding  
Money-saving

**DU PONT**

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING  
... THROUGH CHEMISTRY

**HI-SPEED PRIMER-SURFACER**

(Lacquer-Type)

DU PONT REFINISHING MATERIALS



## **"This one will last, lady... it's a MERIT!"**

There are plenty of good reasons why you can say that to your customers. Merit oval mufflers have  $\frac{1}{2}$  heavier Cushion-Aire® shells, up to  $\frac{3}{8}$  heavier outer heads, heavier inner parts for greater strength. These, plus new Anti-Rust design, give Merits much longer life. They offer maximum silencing and maximum power, too. And all this easy-to-show quality costs no more.

Merit is a complete line from glass-packed mufflers to heavy service truck systems. *No need to pass up any muffler work when you sell the Merit line.*

Start now selling Merit—the high-profit, high-volume, and top-quality line of mufflers and pipes. Why not call your nearest Merit jobber today.

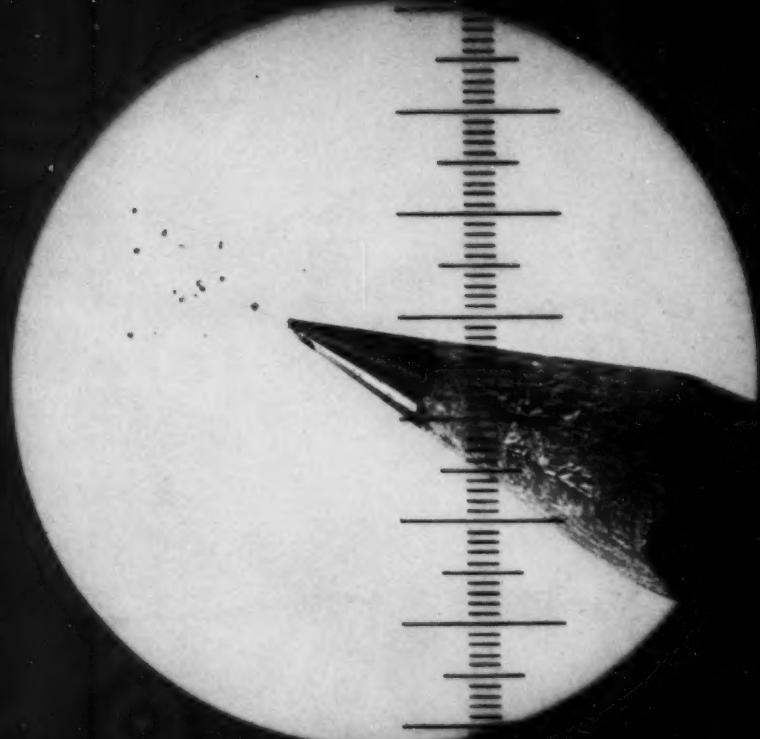
**The big move is to**

**MERIT**

**MUFFLERS AND PIPES**

Dept. 15B, 619 Smith St., Toledo 1, Ohio

# specks the size of a micron



## can shorten engine life

...a big fact to help you sell MoPar Micronic Oil Filters!

Waste and abrasive particles far too small to see with the naked eye can have a deadly effect on engine performance. That's the problem that led to the development of the MoPar Micronic Oil Filter. It actually eliminates these particles from the oil system, to the incredible size of a micron (.000039 of an inch).

• This means that the MoPar filter catches over  $\frac{1}{2}$  more dirt per square inch than ordinary filters.

• It gives greatly increased filtering speed because the filter surface is over 8 times that of conventional types—571 inches against 69.

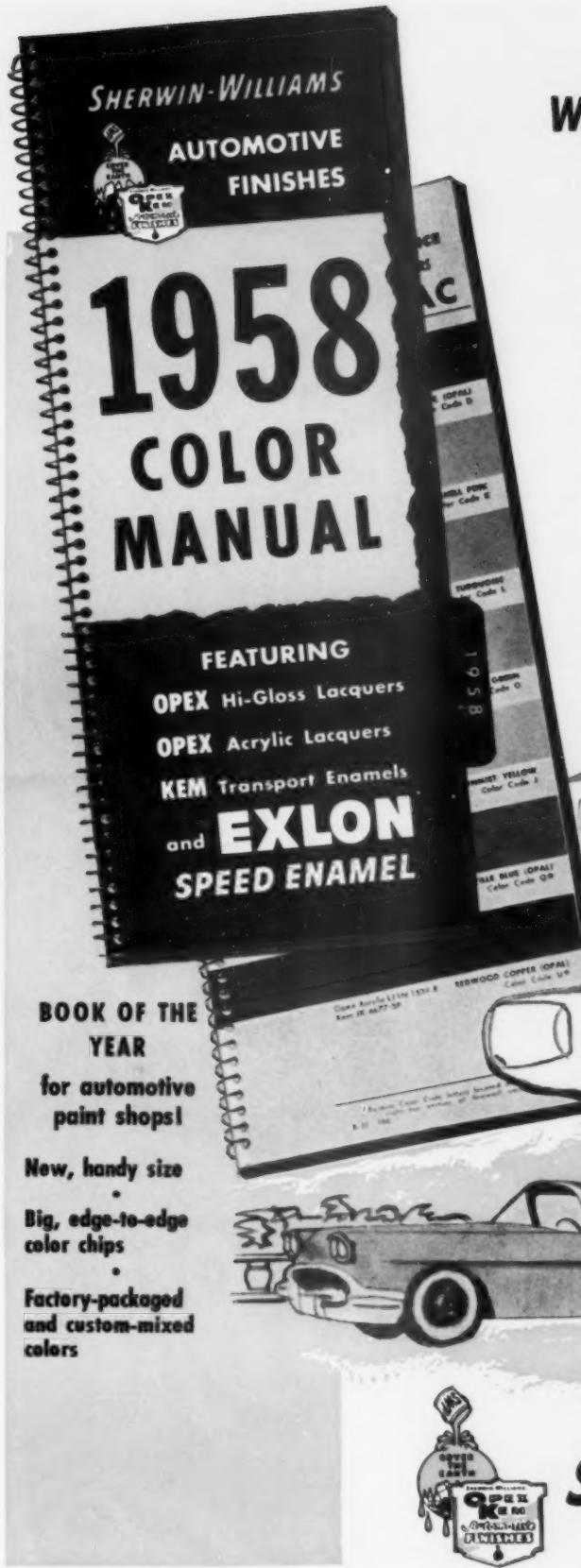
• And MoPar offers far greater capacity; 3 to 5 times the capacity of a waste-type filter of corresponding size. And there's no unloading, warping or distorting.

Satisfy your customers with top engine performance and longer engine life. This is a filter you can sell! MoPar means official, authentic Chrysler Corporation parts and accessories, made to highest precision standards. For quick service, call your MoPar wholesaler salesman or your Plymouth, Dodge, De Soto, Chrysler or Imperial dealer.

**MoPAR**  
PARTS & ACCESSORIES

MoPar Division, Chrysler Motors Corporation, Detroit 31, Michigan

Chilton's MOTOR AGE, FEBRUARY, 1958



## **What the well-dressed car will wear in 1958**

Here's new, handy help in finding *right* answers fast on 1958 automotive colors and materials!

This new 1958 Sherwin-Williams Color Manual shows and identifies all 1958 colors — gives you **BIG** edge-to-edge color chips in a new, handy size book that makes it easy to compare when held against cars or sample panels. And whether you need either standard or acrylic **OPEX®** Lacquers, fast-drying **KEM®** Enamel, or *extra* fast-drying **EXLON®** Speed Enamel, you'll find them all listed by parts number and easy to order.

Get this guide to top-grade 1958 top-coats through your local Sherwin-Williams OK Automotive Jobber. He has everything you need in proper undercoat materials, too. Contact him direct, or write for name of OK Jobber nearest you. The Sherwin-Williams Co., Automotive Division, Cleveland 1, Ohio. (Export Sales Division, Newark 1, N. J.)

**BOOK OF THE  
YEAR**  
for automotive  
paint shops!

### New, handy size

### Big, edge-to-edge color chips

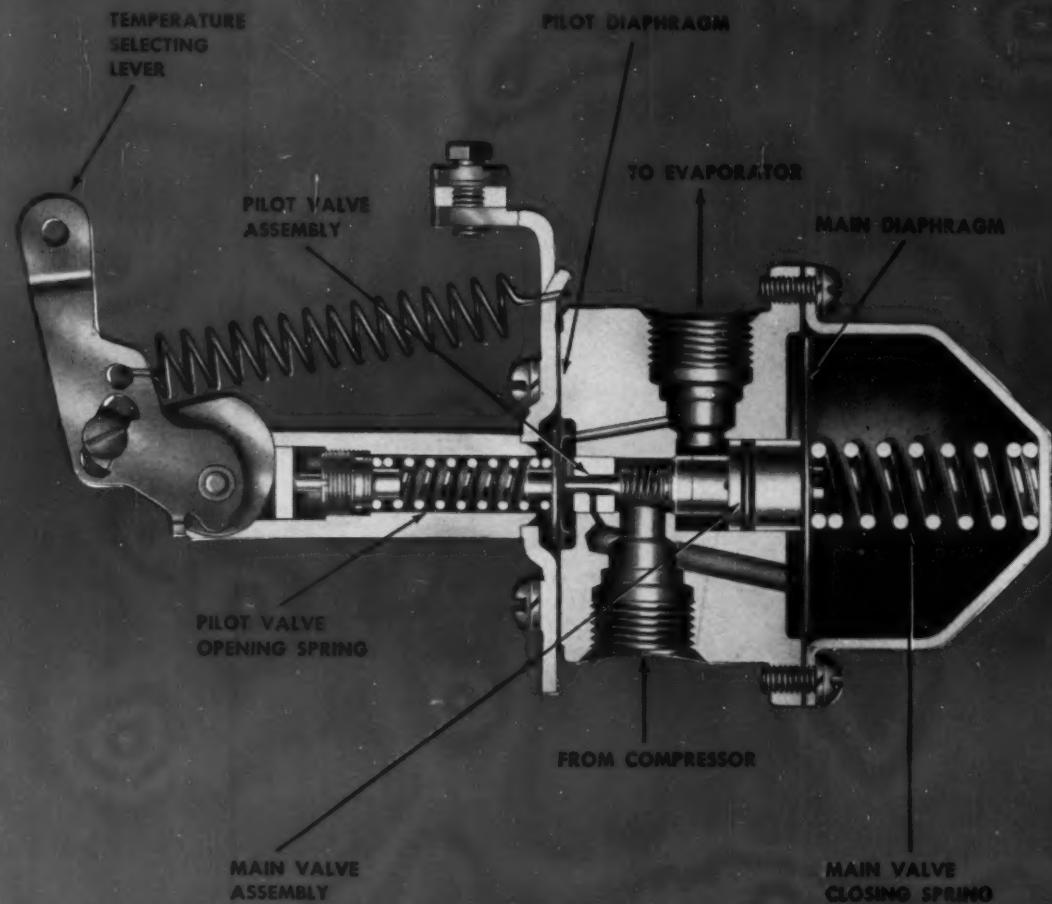
**Factory-packaged  
and custom-mixed  
colors**



# **SHERWIN-WILLIAMS**

**AUTOMOTIVE FINISHES**

# PROGRESSIVE ENGINEERING MAKES THE DIFFERENCE



**NEW DELCO-REMY HOT GAS BYPASS VALVE  
FOR AUTOMOTIVE AIR-CONDITIONING SYSTEMS**

**NEW DELCO-REMY  
HOT GAS BYPASS VALVE  
ON ALL AIR-CONDITIONED  
GM CARS FOR 1958**

To provide controlled, freeze-free operation in an automotive air-conditioning system, Delco-Remy has developed a special hot gas bypass valve. Simple in design, rugged in construction, this mechanical unit produces more even temperature control through its continuous regulating action.

The new unit solves the problem of maintaining constant car temperature at various car speeds and compressor outputs. Once set by the temperature control lever in the driver's compartment, the valve automatically meters the required amount of hot gas from the compressor directly to the evaporator to provide continuous control of evaporator pressure and temperature.

Used on all 1958 General Motors cars equipped with air conditioning, the new Delco-Remy hot gas bypass valve is available from your General Motors car or truck dealer, or the United Motors System.

**DELCO-REMY • DIVISION OF GENERAL MOTORS • ANDERSON, INDIANA**



GENERAL MOTORS LEADS THE WAY—STARTING WITH

**Delco-Remy**  
ELECTRICAL SYSTEMS

# **BIGGEST NEWS**

## **BLUE SUNOCO'S**

Fuels to fit  
every car—from one  
automatic pump

**EXCLUSIVE**  
with Sunoco  
dealers



SUN OIL COMPANY, Philadelphia 3, Pa.

# ***IN MOTOR FUELS***

## ***Custom Blending***

**Soon, your customers will be able to get motor fuels fitted to the exact octane needs of their individual cars, including the highest compression models you sell.**

Within a few months Sunoco dealers will be selling six grades of gasoline automatically blended by one pump. Sunoco's new exclusive pump blends the fuel to fit the car.

These fuels range from the highest octane anywhere at regular gas price (Blend 200), all the way up to the highest octane available anywhere at any price (Blend 260).

This revolutionary new system of tailored fuels is your answer to certain com-

plaints of engine knocks and the high cost of gasoline for the newest high-compression engines.

Once those customers visit a Sunoco dealer and have their cars "fitted" for the exact octane they need, they'll get full knock-free performance and maximum economy obtainable in no other way.

It's the ideal solution to every car dealer's problem of helping his customer obtain the right fuel at the right price for the car he buys.



CHICAGO

MIDWEST  
DIVISION

TULSA

BIRMINGHAM

PITTSBURGH

ST. LOUIS

ATLANTA  
GENERAL OFFICE  
AND PLANT

HOUSTON  
SOUTHWESTERN  
DIVISION

NEW ORLEANS

CINCINNATI

*Now!*

# OVERNIGHT DELIVERY!

*New 1958 Automobile Colors in  
ZAC-LAC ENAMELS and LACQUERS*

- ★ The ZAC-LAC line of enamels and lacquers is complete for every type of automotive refinishing job.
- ★ ZAC-LAC automotive finishes provide long durability, excellent gloss retention and lasting beauty.
- ★ ZAC-LAC is produced in the southeast's most modern paint factory with an annual capacity of more than 2,000,000 gallons.

- From key distributing points strategically located in Atlanta, Chicago and Houston, it is possible for ZAC-LAC to make overnight deliveries now to almost any metropolitan center east of the Rockies. To auto paint shops everywhere, this profitable line of color-fast paints, perfectly matched to all the new 1958 automobile colors, is immediately available to provide the utmost in customer satisfaction. Phone your jobber today for all your ZAC-LAC needs—you'll appreciate his service.

*Choice Distributorships Available—  
Write, Wire or Phone Today!*

**The Original Accelerator  
... a ZAC-LAC Exclusive**



**ZAC-LAC PAINT and LACQUER CORP.**

350 SIMPSON STREET, N. W. • ATLANTA, GEORGIA

Manufacturers of: ENAMEL ACCELERATORS • PRIMER-SURFACERS • LACQUERS • PRIMERS  
SYNTHETIC ENAMELS • THINNERS • COMPLETE AND ACCURATE COLOR-MIXING EQUIPMENT

**ZAC-LAC**

**SELL  
THEM  
SOMETHING  
BETTER**



## **ROBERT BOSCH SPARK PLUGS**

**WITH THE**

**EXCLUSIVE PYRANIT INSULATOR**

Better... take the exclusive Pyranit insulator of Robert Bosch Spark Plugs. Exceptionally resistant to high temperatures, mechanical damage, electrical failure. Better... the extended insulator tip avoids fouling without danger of pre-ignition—a design feature Robert Bosch has had for years.

Sell them something better. Write for full information about Robert Bosch Spark Plugs—and Robert Bosch Ignition Coils, Voltage Regulators, Windshield Wipers, Stark-Tone Horns.

**ROBERT BOSCH CORPORATION**

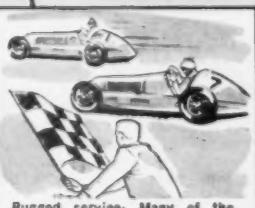
40-25 Crescent St., Long Island City 1, N.Y.

Branch: 225 Seventh St., San Francisco 3, Cal.

\*Registered U.S. Pat. Office. Robert Bosch GMBH, manufacturers of Robert Bosch products.



Standard equipment on leading European cars. The foreign car replacement market itself is tremendous.



Rugged service: Many of the important international races have been won with Robert Bosch Plugs.



Extra special: For 2-cycle engines on outboards, lawn mowers, scooters, etc., Robert Bosch has P11S and M11S plugs—substantially different in design from conventional types.



Full Profits! Robert Bosch Spark Plugs are competitively priced—yet free from price wars.

NOW ATTRACTING CUSTOMERS...AND DOLLARS!

# New MILEAGE MINDER

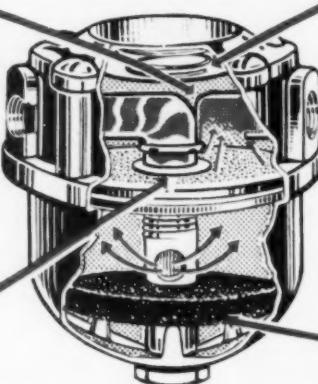
with Magnetic TROUBLE TRAP

**Mileage Minder** fuel purifier and pressure stabilizer. Installs between fuel pump and carburetor. New, compact size, with metal bowl.

**Vapor-Dome** chamber traps gasses that cause vapor lock.

**Fuel Surges** from fuel pump in hammering pulsations. Causes overriding float level, flooding, gas waste.

**Sintered Bronze Filter** removes sand, dust, dirt. Eliminates clogging.



**Spring Loaded Diaphragm** tames hammering pulsations, smooths flow of fuel. Does not reduce fuel pressures. Stops gas waste, improves performance.

**Clean Purified Gasoline** flows smoothly from Mileage Minder to carburetor.

**Magnetic Trouble Trap** captures and holds all iron oxides, weld chips, rust and other ferrous metal particles. Stops flooding.

■ All over the country you hear the moans and groans of customers who say:

*"I paid four thousand dollars for this car and I've had it in the shop many times. Still it dies, stalls, floods and wastes gasoline! Can't you do something?"*

You can! New Mileage Minder with magnetic Trouble Trap gives you the immediate, profitable, customer-satisfying answer!

Mileage Minder works two ways, to give quick and positive relief to fuel system complaints.

First, Mileage Minder stops hammering fuel pump pulsations, smooths the flow of gasoline so that it reaches the carburetor at a steady, constant pressure. Mileage Minder does not reduce manufacturers' recommended fuel pressures, never causes fuel starvation.

Second, Mileage Minder purifies the fuel. The sintered bronze filter removes dust, dirt and abrasives, while the amazing new magnetic Trouble Trap captures and holds all troublesome iron oxides, rust flakes, weld chips and other metallic particles that are causing flooding and complaints.

The results are positive, quick and dramatic, in new car or old:

- Ends gas waste
- Smoother idling
- More pickup and power
- Minimizes vapor lock
- Ends stop-sign stalling
- Stops flooding
- Stops bad-smelling gas fumes
- Increases gas mileage and performance
- Does not restrict or reduce manufacturers' recommended fuel pressures
- Insures customer satisfaction

■ Your customers are seeing Mileage Minder advertising most everywhere today . . . Life, Post, Popular Mechanics, Motor Trend, Motor Life, etc. We're stepping up production daily, and your distributor has stocks now.

Come aboard . . . make money while you make happy customers!

Price maintained at liberal trade discounts. Chrome and gold-colored versions with compact metal bowl. Patent No. 2544289. (Trouble Trap patents pending.) Attractively cartoned for counter display. (Standard glass bowl model MM100KU still only \$6.95.)

**\$7.95**



# MILEAGE MINDER

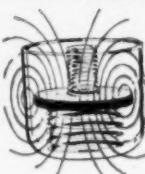
with Magnetic TROUBLE TRAP

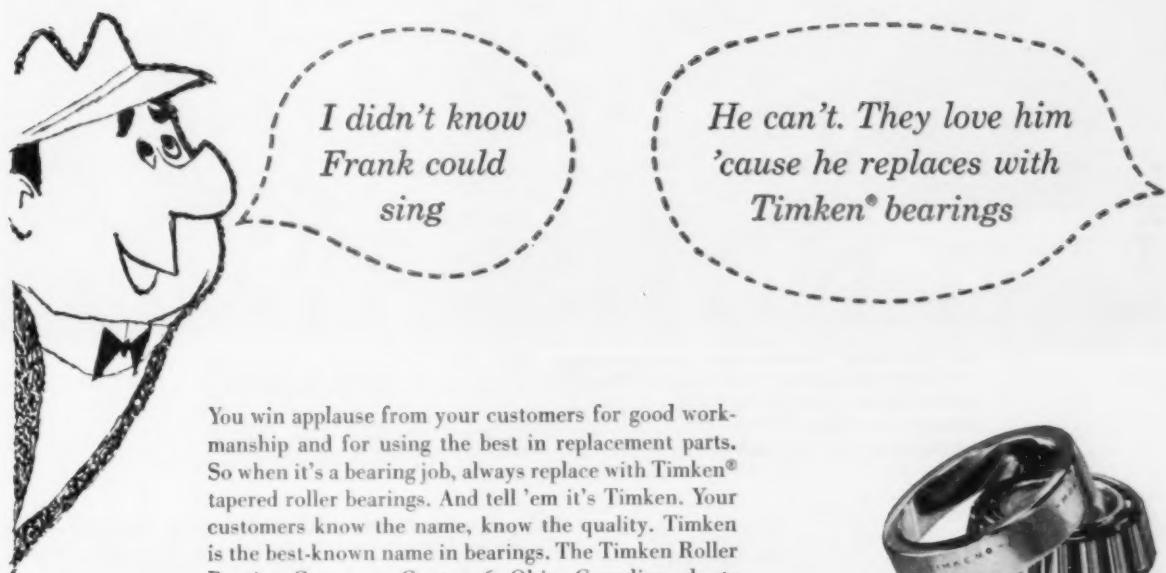
PASER MANUFACTURING COMPANY,  
533 TURK STREET, SAN FRANCISCO 2

## Introducing Magnetic TROUBLE TRAP

For installation in most standard filter and fuel pump bowls. Powerful XH-297 full-field magnet captures and holds all troublesome iron oxides, weld chips, rust flakes and other ferrous metal particles. Safely takes out the trouble-makers . . . and keeps them out. Stops flooding and gas waste. Makes any good filter better.

One universal model engineered for use in any suitable fuel pump or filter bowl. Price maintained at \$1.95 with liberal trade discounts. ATTRACTIVE COUNTER DISPLAY CARTON.





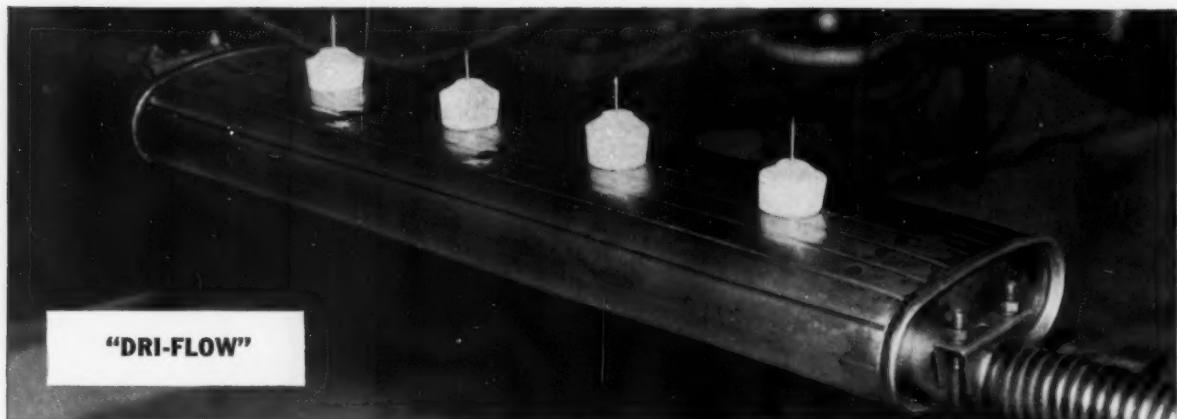
You win applause from your customers for good workmanship and for using the best in replacement parts. So when it's a bearing job, always replace with Timken® tapered roller bearings. And tell 'em it's Timken. Your customers know the name, know the quality. Timken is the best-known name in bearings. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".



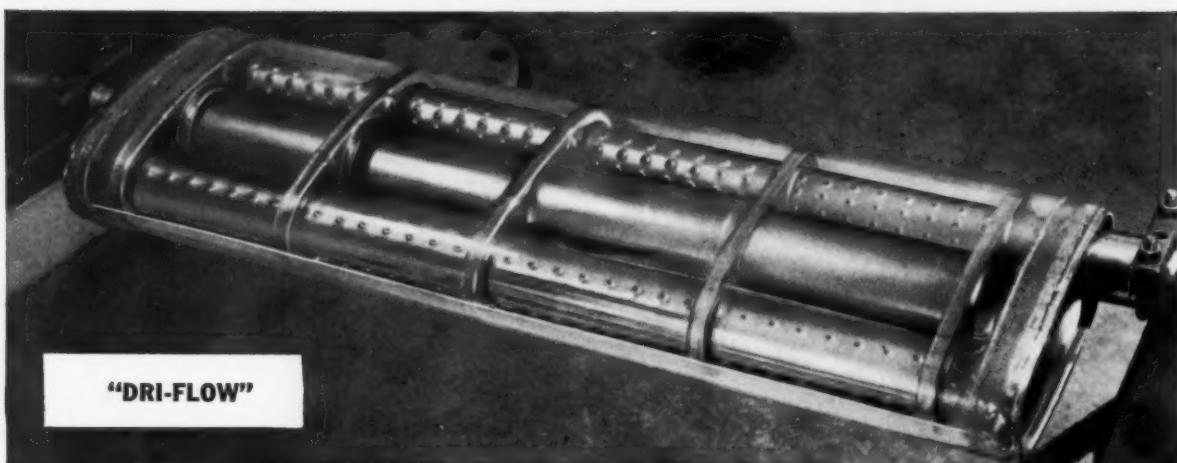
CUSTOMERS LOVE YOU WHEN YOU REPLACE WITH AMERICA'S BEST-KNOWN BEARING... JUST TELL 'EM IT'S...

**TIMKEN**  
TRADE-MARK REG. U. S. PAT. OFF.  
TAPERED ROLLER BEARINGS

# More Proof That the New AP Drier, Slows Rustout, Gives



**AP "Dri-Flow" Design heats evenly.** This muffler (No. 467) was installed on an engine dynamometer and the engine was run at a speed of 25 mph for 10 minutes. The equally melted candles clearly show how heat has diffused evenly throughout the entire muffler. This uniform heat keeps the muffler much drier inside, protects it from rustout, adds greatly to muffler life.



**AP "Dri-Flow" Design cuts condensation.** This "Dri-Flow" plastic shell model (No. 467) was installed on the engine dynamometer and the engine was run exactly as above. At the end of the 10-minute period, practically all the condensation in the chambers had been dried up by the evenly distributed heat of the exhaust gases. This test simulates normal stop-and-go city driving and shows why AP runs drier, lasts longer.

*"Dri-Flow" design is now featured on almost 80 fast-moving AP numbers and is being added to others as rapidly as possible.*

**THE SIGN OF  
AP MUFFLER PROFITS**

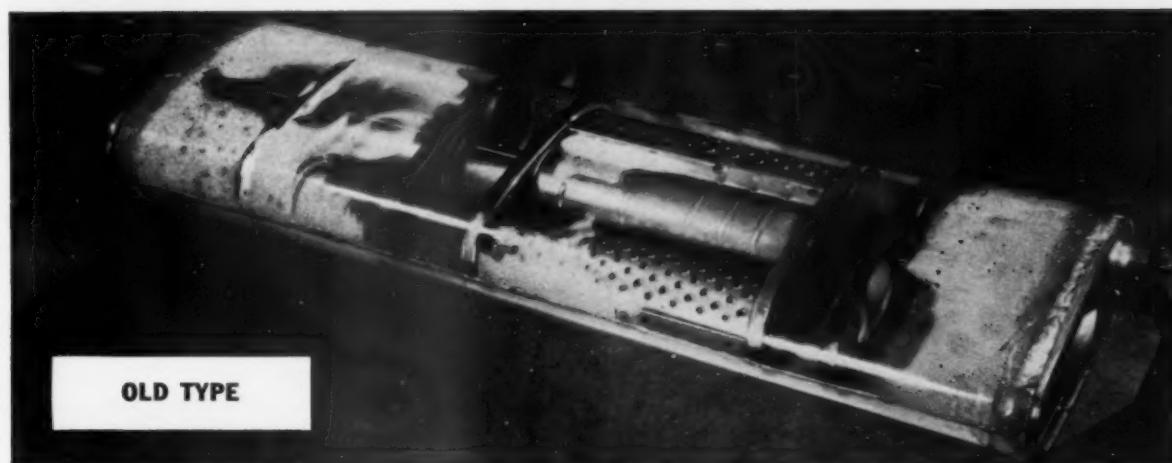


AP's extra strength and engineering features have always meant longer life. For years AP mufflers have been made with up to  $\frac{1}{3}$  heavier shells,  $\frac{2}{3}$  heavier heads. Many have asbestos liners, aluminized and zinc-coated steels, AP's Air-Liner Shell—all are used in any combination necessary. Now AP's revolutionary "Dri-Flow" Design gives another big plus. By diffusing heat evenly over the entire area of the muffler, it cuts corrosion and rustout, adds greatly

# "DRI-FLOW" Design Runs Much Longer Muffler Life



**Typical old-type hot spot, cold spot design**, this earlier AP (No. 467) causes candles to melt unevenly after 10-minute test. Chambers at both ends receive too little gas flow and are too cold, causing condensation of corrosive moisture. Heat-darkened areas and short candles indicate hot spots—over-concentration of heat in the central chambers.



**Excessive condensation in old type design** after 10-minute test is shown in this plastic shell model of the earlier AP (No. 467) design. Because of the uneven distribution of the hot exhaust gases, the cold end chambers are heavily fogged, and large drops of corrosive moisture have already collected there. As much as one quart often accumulates. This acid-bearing water film eats away the inside of the muffler in a matter of months.

to muffler life. More than ever, AP mufflers outlast all others, inside and outside.

Although AP sets the pace in design and quality, *your customers pay no more for AP mufflers!* And you build bigger profits with this premium product when you sign up with your AP wholesaler as an AP Muffler Specialist. Right away you cash in on AP's national advertising, giant A-Board sign, the "Tap, Look and Listen" plan. These can bring you extra

profits of more than \$2715 per year from muffler installations. Why not profit now . . . with AP. See your AP wholesaler today.

**THE AP PARTS CORPORATION**

**3-O AP Building, Toledo 1, Ohio**  
Mufflers and Pipes

# Exclusive HEYER BIG SCREEN 8½" DYNA-VISION®

The INSTANT Engine Analyzer  
Costs You Nothing

(Pays for Itself by Extra Profits)

Makes all tests on the car in a matter of minutes. It is no longer necessary to remove parts unless they require service. This saves hours every day—many times the daily cost of the equipment. Actually it costs you money just to be without Dyna-Vision. Prices start at \$450.00 for the "scope" only. Here is a popular assembly.

Model 537 Special Motor Tuner with Dyna-Vision consists of the following units:



MODEL 537  
PRICE only \$794.25  
\$79.42 down and  
as low as 80c per day

MODEL 335 8½" Dyna-Vision Projector with both primary and secondary patterns plus exclusive automatic comparator and identifier circuits.

MODEL 337 Accessory unit with 4½" precision meter, 0-1000-5000 RPM and 0-18 volt scales plus built in timing light socket.

MODEL 311 Combustion Analyzer with electric pickup suitable for floor or dynamometer use—no hoses to drain.

MODEL 459B Floor Stand—4" casters, overall size of unit 58" high, 20" wide, 20" deep, net weight 105 lbs.

MODERNIZE YOUR PRESENT MOTOR TUNER  
WITH DYNA-VISION



MODEL 335K  
CONVERSION KIT  
PRICE \$475.00

\$47.50 down, 48c per day

Complete with adapters for mounting on Sun, Allen, King and earlier model Heyer Motor Tuners. No electrical connections to disturb—installed in 30 minutes.

# HEYER

To HEYER INDUSTRIES, INC., BELLEVILLE 9, NEW JERSEY

I would like a DYNA-VISION demonstration. No obligation, of course. J-2

NAME.....

ADDRESS.....

CITY..... STATE.....

BY..... DATE.....

# The Readers Always Write

## Speed Record Correction

Dear Editor:

We've been robbed! We demand a retraction.

Re—Page 72—Motor Age, December, 1957—under I.G.O. you stated we failed to break old record. You couldn't be more wrong. We not only established a new speed record of 270 m.p.h., but we now have the World's fastest *all* automobile. We use stock production Ford cylinder block, etc.; whereas, the three cars that have gone faster (all from England) were not only aircraft powered, but supercharged as well.

Please read enclosed tear sheet and we'll be looking for a retraction next month.

(Signed) Bill Kenz

Denver 4, Colo.

*Editor's note: Congratulations to Kenz & Leslie's V-8 Service for setting the new record. Motor Age's report was based on an earlier test run when the car did not crack the record. We're happy to hear the good news of the subsequent successful run. We understand that besides the mark for the world's speed record for a car built with production components, the Kenz-Leslie streamliner set the new two-way mark with an average of 266.027 mph on the Bonneville salt flats.*

## Who Shall I Write?

Dear Editor:

We have subscribed to several of your publications for the past ten or more years. I recently read an article in your MOTOR AGE magazine, under the head-

(Continued on page 28)

## "How Motor Age Came to My Rescue"

\$25 Bond for Best Letter

In 1958 we are going to have an occasional contest for our readers. The subject: "How Motor Age Came to My Rescue." The prize—a \$25.00 U. S. Saving Bond for the best letter on how Motor Age serves you best.

There are no entry fees . . . nothing to buy . . . no strings attached. All that you need do is to write a letter on your business stationery on the subject. Sign your name and title.

The contest is open to all subscribers of Motor Age, excepting employees of the Chilton Company, publishers of this magazine.

Writing style, grammar, are not essential factors in winning the contest. It's your ideas, your testimony that counts. Motor Age editors will be judges in this contest and their decision will be final.

For example, a fellow up in Alaska had an engine problem. He wrote tech editor Jack Montgomery for advice. He said he was frozen in and wouldn't do a lick of work on the job until Motor Age came to his rescue.

Motor Age thawed the problem before springtime.



For the toughest cleaning jobs, BENDIX\* Metalclene is tops. You dip dirty metal parts in Metalclene—and they come out clean. No brushing, no scraping, no heating. There are many imitations—there is no substitute.



BENDIX\* Econo-clene is a multi-purpose cleaner concentrate that makes ten gallons from one by mixing with solvent or kerosene. It removes oil, grease, resins and tars; can be used as a spray or a dip; has high rinsability in hard or soft water.

REG. U. S. PAT. OFF.  
BENDIX PRODUCTS DIVISION,  
BENDIX AVIATION CORP.,  
SOUTH BEND, IND.

*The  
Readers Always  
Write*

ing, "Service Man's Idea Book."

The article mentioned the fact that the Independent Garage Owners of Ohio had arrived at a schedule of prices, listed as, "Deposits for Estimates."

Would you kindly advise me whom and where to write, to obtain more detailed information on this subject?

Hoping this receives your

early attention as we, as a concern, belong to a similar organization here in Rochester and wish to bring this particular matter up in our next meeting.

(signed) E. Charles Rabe  
Rochester 9, New York

**Editor's Note:— Write to:—**  
Harold Grindle, Executive Director, Independent Garage Owners of Ohio, 1843 Stahlwood Ave., Toledo 13, Ohio; Frank Hornyak, President, Independent Garage Owners of Ohio, Struthers, Ohio; Paul Wilson, Pres., Independent Garage Owners of America, Toledo 12, Ohio; and

Ralph James, Exec. Dir., Independent Garage Owners of America, Inc., 36½ North Lewis, Tulsa, Oklahoma.

**Wants More on  
Noise Problems**

Dear Editor:

As new subscribers to Motor Age we have rather thoroughly reviewed the contents of the first couple of issues. I have especially been interested in the section "Trouble Shooting Problems," since I am involved in considerable amounts of technical service with our Petroleum

# ONLY Ingersoll-Rand 5 SIZES IN ELECTRIC



Size 2U (Heavy Duty)  
Electric Impactool,  $\frac{3}{8}$ " drive  
PAYS FOR ITSELF IN 90 DAYS



Size 4U-SD (Standard Duty)  
Electric Impactool,  $\frac{1}{2}$ " drive  
SAVES UP TO 90% OF  
HAND WRENCH TIME



Size 5UT (Heavy Duty)  
Electric Impactool,  $\frac{1}{2}$ " drive  
PRECISION TORQUE CONTROL  
WITH AUTOMATIC SHUT-OFF



Size 8U (Heavy Duty)  
Electric Impactool,  $\frac{3}{8}$ " drive  
LOOSENS TIGHTEST  
RUSTED OR FROZEN NUTS



ORIGINATORS  
OF IMPACTOOLS  
... AIR AND  
ELECTRIC



Size 34U (Heavy Duty)  
Electric Impactool, 1" drive  
MOST POWERFUL ELECTRIC  
TOOL YOU CAN GET!

IT HAD TO BE DONE! Service costs had to be cut . . . so Ingersoll-Rand went ahead first . . . and did it. The I-R line of Electric Impactools gives you a tool that fits your needs perfectly. No wasted money—no wasted effort. That's why over 100,000 mechanics are using I-R Impactools today! Prove it in your own shop. Any Ingersoll-Rand jobber will arrange a demonstration at your convenience.

IB-730

**Ingersoll-Rand**

11 Broadway, New York 4, N.Y.

Division. We wish to compliment you for the excellent job you do in providing concise answers to many of the complex problems brought up by readers.

It certainly would be worthwhile if your answers to the questions under the title, "Noisy Hydraulic Valve Lifters" could be given widespread publicity, since this noise problem in hydraulic valve trains seems to be a chronic complaint.

We wonder if it might not be worthwhile in a future issue to provide further clarification concerning your statement that "A lot of fellows have been getting

good results by using an additive in the crankcase oil." Many readers may interpret this statement to mean the use of a "tune-up dope" in their crankcase oil rather than the use of a good additive treated oil in the crankcase.

Although it is true that some of these packaged additives or "dopes" may have the effect of increasing the detergent and inhibitor content of the oil, and others at least will not be harmful; it is also true that many of these materials can actually be detrimental in the crankcase. Some of these materials cause

serious deterioration of the crankcase oils and others by their very nature have an adverse effect upon engine life and performance.

(signed)

Donald J. Armstrong,  
St. Paul 1, Minn.

### He Likes Motor Age

Dear Editor:

Your last issue of MOTOR AGE is one of the best issues I have read.

(Signed)

William O. Polar  
Iron Mountain, Mich.

# CAN GIVE YOU AND 8 SIZES IN AIR



Size 402,  $\frac{3}{8}$ " drive  
Air Impactool  
  
SMALLEST PISTOL GRIP  
POWER WRENCH YOU CAN GET

LIGHT, COMPACT,  
POWERFUL! . . . I-R Air  
Impactools take the sweat  
out of any nut-running  
job. I-R has been designing,  
testing and selling  
these tools longer than  
any other maker. The  
Ingersoll-Rand line has  
more features for easy use  
and more features for job  
efficiency.

**Ingersoll-Rand**



Size 403B,  $\frac{1}{2}$ " drive  
Air Impactool  
  
BUILT-IN AIR REGULATOR  
FOR SELECTING POWER YOU WANT



Size 308,  $\frac{3}{8}$ " drive  
Air Impactool  
  
DESIGNED TO HANDLE  
THE TOUGH ONES



Size 310,  $\frac{3}{4}$ " drive  
Air Impactool  
  
MOST POWERFUL  
ONE-HAND TOOL MADE



Size MC-12 Air IMPACutter  
THE MODERN, SAFE WAY TO  
CUT METAL, BOLTS, RIVETS, ETC.



Size 334,  $1\frac{1}{4}$ " drive  
Air Impactool  
  
TAKES THE SWEAT OUT OF THE  
BIGGEST BUDD WHEEL JOBS



Size 7500 TIRE TOOL



Size 8000 TIRE TOOL  
  
SAVE TIME, EFFORT, MONEY  
ON TRUCK TIRE WORK

18-730-1

# MAKE MORE MONEY on your 3 "must" tire services

## 1. TUBELESS TIRE... SIMPLIFIED VALVE SERVICE

*Every dealer always needs this combination to make his job easier.*



#990 Inventory Saver Unit—  
every dealer needs a package of  
these valves to match his  
tire stocks to any vehicle.



#992 The tool that snaps the  
valve into any rim.

## 2. TUBE OR TUBELESS REPAIR SERVICE

*Every dealer needs these quality flat-fixing materials.*

### NEW! Patches —

*Introducing*

new chemical way  
of patching tube  
or tubeless so it  
is really sealed.



### Rivets —

for sealing tubeless puncture  
up to  $\frac{1}{4}$ ".

## 3. TUBE OR TUBELESS TIRE PRESSURE MAINTENANCE

*Every dealer always needs this quality equipment to insure maximum tire mileage.*

Schrader Caps  
and Cores  
seal air in



Read pressures accurately.  
Inflate safely.



**PLUS**—Complete valve line-up  
for repairing millions of tubes now  
rolling. Tube-type is still the biggest repair  
and replacement business—don't overlook it.



**Schrader**  
a division of **SCOVILL**

FIRST NAME IN TIRE VALVES

FOR ORIGINAL EQUIPMENT AND REPLACEMENT

See your Schrader supplier—stock up on these basic Schrader products.

**A. SCHRADER'S SON**  
Division of Scovill Mfg. Co., Inc.  
Brooklyn 38, New York

# SPORTS PAGE

## Skin Game

**T**HREE is a school which holds that horse racing is strictly a skin game. For them, this heart-rending tale from a client in the Chicago area:

"I am a physician, aged 39. I specialize in skin diseases—a dermatologist. By no coincidence at all Dermatologist is also the name of a race horse, my race horse. I have a large practice, teach in a medical school, contribute to medical literature, live what might be considered an exemplary life for a man in the professions—except for my relationship with this race horse and, of course, the race horse people.

"Dermatologist was bought as a yearling and was owned jointly by myself, a barber and a man who works in the steel mills. He was purchased for \$3,500, and his troubles soon began. He developed physical ailments variously diagnosed as kidney trouble, sinusitis, shelly feet, arthritis of the spine, and just 'a bad way of going.'

"After a series of assorted remedies and veterinary bills, Dermy reached the races at last at Washington Park, and finished the worst last ever recorded there in a race in which no horse dropped dead.

### Nobody Knows the Troubles

"At this point the steel worker sold out, the barber clamored for the horse to be gelded and I hospitalized myself for three days for transfusions for a bleeding ulcer. After a couple more races in which Dermy challenged his previous record, I reluctantly permitted him to be gelded. (As it turned out, the only problem this may have eliminated was his sinusitis.)

"Meanwhile, the horse was subjected to the most heart-rending ridicule and vilification and I, myself, was a recipient of the same corn in our community. It even was



VIEWS OF SPORT  
By Red Smith

reflected in my practice, for who wants to be treated by a doctor with losing horses?

"A boat race was arranged by one of my trainers—at least, I always believed this race must have been arranged, for on a sloppy track while slipping and stumbling, Dermy came in second in miserable time. With this second, I permitted the trainer to take the horse to Florida. Once again he lapsed into his role of bad last.

"We sent him to Fairmount Park in Illinois where, against cheap horses, he was fairly successful. Meanwhile I became extremely attached to him, hoping that some day those in our group who ridiculed would give him the respect he would deserve as a thoroughbred. I also became aware of certain running characteristics which I believed we could capitalize on by special training methods.

### Return of the Prodigal

"The next spring, with altered training methods, Dermy flashed excellent form. He was beaten a nose in two successive races. We were running him in \$2,500 claiming races and my trainer insisted that with his record and known ailments, he would never be claimed. Lo and behold, he was claimed at the very end of the meeting by a stable that was leaving for Omaha, Nebr.

(Continued on page 89)

*What do you mean*

# WORN SHOCKS CAUSED THIS?



The left front wheel hit a rut in the road. The car came crashing down on its springs, then bounced hard. The rebound lifted the rear wheels right off the road, and the car skidded wildly out of control. Another accident caused by *worn shock absorbers*.

Shock absorbers do far more than cushion the ride. They stabilize a car, keep wheels from bouncing off the road, prevent erratic steering and side sway. *They are vitally important to car control and safety.*

When you replace worn shocks with new Monroe-

Matics, your customers get an *extra* measure of safety . . . as well as a smooth, comfortable ride. They're the only shocks with automatic adjustment for all roads, all loads.

When you sell Monro-Matics you sell the shock that's first in replacement sales and used as original equipment on more makes of cars than any other brand.

You sell safety when you sell Monro-Matic shock absorbers . . . and customers are more safety conscious than ever before!

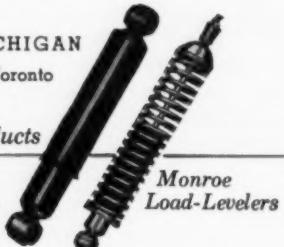
**Monroe Auto Equipment Company • MONROE, MICHIGAN**

In Canada • Monroe-Acme, Ltd., Toronto



*World's largest maker of ride control products*

Monro-Matic  
Shock Absorbers



**Mister**

# **JOBBER EXECUTIVE**

*AWDA Convention . . . Wanted: Auto Mechanics . . . NAPA's Officers*

*Companies Merge . . . MEWA Essay Contest . . . New Name For Divs.*

● **WHOLESALE MANAGEMENT COURSE . . .** Plans have been finalized for holding 7th Annual Wholesale Management Course, June 15-21, 1958 at Ohio State University, Columbus, Ohio. This course, which specializes in management training for wholesalers is sponsored by the National Assn. of Wholesalers. Wholesaler members of N.S.P.A. attend through their assn's affiliation with N.A.W.

● **NAME CHANGED . . .** The Wooster Rubber Company announced a corporate name change to Rubbermaid, Inc. The announcement was made for the company's board of directors by James R. Caldwell, president and founder of the company. The company will keep its main headquarters and operating facilities in Wooster, Ohio. Subsidiary companies are located at Cleveland, Ohio; Jamestown, N.Y., and Cooksville, Ontario.

● **AWDA CONVENTION DATES . . .** The 1958 annual national convention and manufacturers'-distributors' conferences will be held from December 12 to December 16 at the Muehlebach Hotel in Kansas City, Mo., according to an announcement of Walter T. Devine, president of Automotive Warehouse Distributors Assn., Inc.

● **WANTED: AUTO MECHANICS . . .** Auto industry officials estimate that more than 40,000 new garage mechanics must be trained in '58 if the nation's 64 million motor vehicles are to be maintained in safe driving conditions.

● **COMPANY ASSETS ACQUIRED . . .** American Brake Shoe Company has purchased the assets of the Gaines Foundry, Inc. near Los Angeles. The newly acquired facility, which will be operated as the Gaines Works of the Light Metals Department of Brake Shoe, produces aluminum and magnesium castings for the aircraft industry. Frank Gaines will continue to manage the operation.

● **NAPA'S OFFICERS . . .** Henry Lansdale, who for 28 years served the National Automotive Parts Assn. as vice president and general manager and more recently as chairman of the board announced his retirement at organization's annual meeting in Chicago.

Robert L. Stacey of Detroit, who succeeded Lansdale as vice president and general manager three years ago was re-elected to this office at the same meeting. Other officers elected were Winton Looney as president and John H. Baldwin as vice pres.

● **COMPANIES MERGE . . .** The board of directors of Van Norman Industries, Inc. has ruled that Insuline Corporation of America and Transitron, Inc., sister divisions, be integrated into one entity known as Electronics Division, Van Norman Industries, Inc. The merger took place on January 1, 1958.

S. K. Lackoff was appointed divisional president. Other officers are: Ralph Baer, vice president for engineering and Felix Paolucci, vice president of government sales.

● **MEWA SELECTS JUDGES . . .** The Young Executive Group of MEWA recently selected its Annual Essay Contest judges from among member wholesalers. The current essays have been submitted on the theme: "How Wholesalers Can Conduct On-The-Job Employee Training Programs."

● **NEW NAME FOR DIVISIONS . . .** Maremont Automotive Products, Inc. has announced the establishment of a new name, MarPro, Inc. for four of its principal divisions. The following divisions of Maremont will now be divisions of MarPro, Inc. They are: Maremont Mufflers, Accurate-ReNu Clutches, Pratt Mufflers and Grizzly Brake Linings.

# Operation JOBBER

## *A Salesman's Training Never Comes to an End*

**N**OW that you have had a good look at your store appearance (see *Operation Jobber*, *Motor Age*, January, 1958), let's take a king-size view at your personal selling. Let's determine how your inside and outside salesmen "sell" those customers. How you plan to help your salesmen 'keep 'em coming back.'

Your salesmen must be familiar with all phases of the automotive jobbing business. In practice, salesmen are often asked to make collections, fill out reports, provide technical information—in addition to selling the product.

In fact the salesman's training never ends. Primarily because of the many new products and services introduced each year. The progressive selling force that makes records and meets quotas keeps up to date with changing conditions. All the time. Not just part of time.

Granted that there is much more to jobber selling than just putting a salesman on the hiring side of the ledger and thrusting a catalog or order book into his hand, what are these key selling problems that many wholesalers face today?

In answer, let's draw up a checklist. As you run down these items, have a pencil in hand.

Make notations. Questions to keep in mind include: At present is it O.K.? Should Improve? If so, who? Myself or employees? In either case, do I need supplier's help?

All right. Let's start with the COUNTER.

- Do customers get prompt attention at the counter?
- Is your master counter catalog up to date, easy to use?
- Does each counterman know all possible approved credit arrangements?
- How about telephones? Have you enough to handle volume of calls?
- Do key executives occasionally work the counter to keep in touch with the trade?
- Does the counterman know the selling points on major products?
- Are there comfortable stools in front of the counter?
- Does each counterman know the importance of keeping a lost sales record? Does he?

### **How about Shop Area?**

Now we'll proceed to the Shop. Is the shop area clean? Orderliness gives a good selling impression.

Are shopmen trained to speak up, to talk conversationally with customers who come in the shop?

Do YOU invite customers and prospects to visit your shop?

### **Outside Salesmen**

Next on the agenda is a checklist for your outside salesmen.

- Do salesmen spend enough time in actual selling?
- Are salesmen trained to adjust complaints?
- Do salesmen carry samples of new products?
- Are salesmen required to make a definite number of calls a day, according to city or country location?
- Is there a new customer quota to shoot for?
- Do your salesmen keep a follow-up file when a new product or service is announced?
- Do salesmen know the complete story on all Key Lines?
- Are catalogs and price sheets kept up to date?
- Do salesmen sell machine shop services?
- Do salesmen regularly call on all service stations?
- Do salesmen offer customers help on advertising and promotions?
- Are salesmen aware of what special products or services each customer requires?
- Do salesmen talk to customers about business improvements?

## Motor Age's Who's Who



**E. T. (Jim) Syvertsen** has been appointed director of Market Development for Maremont Automotive Products, Incorporated, Chicago, Illinois.

**Clyde P. Brewster** has recently been elected to the board of directors of the K-D Manufacturing Company. He will continue as vice president in charge of Sales.

**Robert T. Hood** has been elected to the position of treasurer and controller of The Gabriel Company, Cleveland, Ohio.



**Robert H. Wilkie** has been appointed marketing specialist on New Departure and Hyatt bearings for United Motors Service Division of General Motors. He will headquartered in Detroit.

**Fred W. Elliott** has been elected a vice president of H. K. Porter Company, Inc.

**David T. Sickles** has been appointed to the newly created position of manager of the Detroit office of Warner Automotive Division of Borg-Warner Corp.



**R. A. "Reg" Christian** has been appointed to the newly created position of assistant manager of the Detroit district of Bennett Pump Division, John Wood Company.

**A. G. Nielsen** has been transferred from manager of the Indianapolis Automotive branch office of the Automotive Parts Division of Wagner Electric Corporation to manager of the Pittsburgh Automotive office. He has been succeeded at Indianapolis by C. N. Wilson.



**Arthur W. Bull**, left, has been elected president of the Michigan Wire Cloth Company, of Detroit. Former executive vice president, he succeeds his father, **Arthur A. Bull**, who has been named chairman of the firm's board of directors.



**Melvin Estey**, left, has been named executive engineer and **Robert W. Heid, Jr.** has been promoted to assistant chief engineer in charge of replacement engineering activities of the Perfect Circle Corporation.

**D. O. Thomas** has been elected chairman of the board of directors of the Bendix-Westinghouse Automotive Air Brake Company and **Willard B. Paine** has been elected president and chief executive officer of the firm.

**George T. Humphrey, Jr.**, photo, has been appointed general manager of the Service-Sales Division of The Timken Roller Bearing Co. He replaces **E. H. Austin** who becomes special representative working for the director of sales and the vice president in charge of sales.

**I. A. Kravitz** has been named executive vice president, sales, and **Walter S. Lepene** has been named vice president, sales of the Anchor Industries, Inc. This company is a consolidation of Anchor Rubber Products, Inc., and Doan Manufacturing Corp.



**O. W. McMullan**, photo, has been appointed director of Research and Development of the Bower Roller Bearing Division, Federal-Mogul-Bower Bearings, Inc. **William F. Eaton** has been promoted to associate director of Research and Development.

**Robert N. Wolfe** has been appointed as general manufacturing manager, adhesives, coating and sealers division of Minnesota Mining & Manufacturing Co. **Walter C. O'Leary** was appointed as technical director for the division.

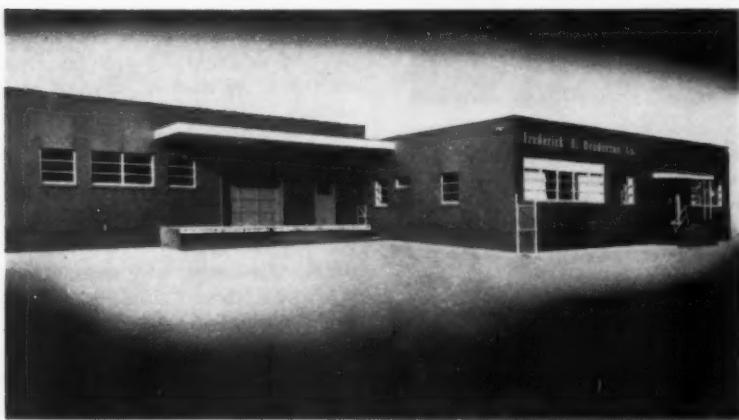


**S. R. Zimmerman, Jr.** has been appointed general manager of Raybestos-Manhattan's U.S. Asbestos-Grey Rock Division, Manheim, Pa. He is also a vice president and director of Raybestos-Manhattan.

# signs of the times . . .



Standing behind the rostrum in the Conrad Hilton Hotel, Chicago, are the newly elected officers of Automotive Booster Clubs International, Inc. They are, left to right, Mose Hudson, treasurer, Jacksonville; Bill Knoyer, 1st vice-president, Denver; Ed C. Abdelnour, president, New York; Joe Del Greco, 2nd vice-president, Cincinnati; and Victor C. Condron, Jr., secretary, Seattle.



Located on the busy New York to Boston truck thoroughway at Stamford, Conn. is this modern 12,000-sq ft warehouse of F. B. Henderson Company. The out-growth of an older storage building, this fine warehouse houses a variety of automotive, industrial, marine and hardware products.

## Refinish Group Announces Name

Automotive Refinish Institute is the adopted name of a new organization aspiring to upgrade auto painters and body shop operations, advance refinish standards, and promote retail painting and refinishing sales.

The name, as well as a constitution and by-laws, was born at a Chicago gathering during December. The "Institute" is composed of representatives from suppliers of spray painting equipment, body tools, pressure-sensitive tapes, abrasives, paints and thinners, and allied products.

A six-man executive committee is headed by Chairman L. J. O'Doherty, Acme Quality Paints, Inc.; Vice-chairman W. E. Marsden, Minnesota Mining and Mfg. Co.; Treasurer A. S. Boehm, Black and Decker Mfg. Co.; and Secretary J. H. Gustafson, 3M Co.

## Wholesaler Stops Business Jan. 1

Ozburn, Crow and Yantis Company, southern and southwest wholesale redistributors of auto parts, supplies and equipment, ceased business on January 1. They had been active since 1932.

Ozburn-Abston & Co., Memphis, Tenn., The Automotive, Inc., Fort Smith, Ark., and Crow-Burlingame of Little Rock will continue serving that area as automotive replacement wholesalers.

Three new wholesale warehouse corporations—Parts, Inc., Memphis, Parts Warehouse, Inc., Little Rock, and Motive Parts Warehouse, Inc., Fort Smith, have been opened in those areas.



Gene P. Robers, a former Vice-President, was elected President of Automotive Electric Association at the group's December convention. Other officers flanking him are, left to right: Vern A. Dupy, vice-president and Chairman, Manufacturers Div; Max F. Marsau, vice-president and Chairman, Service Distributors Div; Robers; Frank A. Crossman, vice-president and Chairman, Central Distributors Div; Joseph Sirotek, secretary-treasurer.

## Merrell Succumbs

John H. Merrell, honorary director of Raybestos-Manhattan, Inc., died January 4 at Chicago. He served the company for 54 years, beginning with the Manhattan Rubber Mfg. Co. (now

the Manhattan Rubber Div.) in 1903 at the Chicago branch office.

He became successively Chicago branch manager, vice-president and director of Raybestos-Manhattan, Inc.



This modern, well-lighted plant is the machine shop of Howard Supply Co., located in Urbana, Ohio, distributor of automotive parts and equipment. The company was founded 25 years ago and the two intervening decades have brought two name changes and two flourishing branch stores.

## Du Mont Unveils Tune-up Line

The availability of a complete line of automotive test equipment was announced by Allen B. Du Mont Laboratories, Inc. at the recent 41st annual NADA convention in Miami.

In 1956, Du Mont introduced the first of its equipment, a TV-type Enginescope for testing detonation, vibration and pre-ignition.

E. Eugene Ecklund, sales manager, automotive equipment division, unveiled the first of Du Mont's line to the Miami audience. Arrayed were oscilloscopes, instruments, gauges, indicators, mobile stands, plus instrument racks and accessories. A second TV-type analysis scope, the Ignition Scope, was also introduced among the line.

## Founder Dies

John H. Victor (photo), founder of the Victor Manufacturing & Gasket Co., died December 8 at 75. He was chairman of the Chicago firm since 1948.



Mr. Victor is credited with several gasket and oil seal designs that are still in use. He also pioneered in the development of a synthetic rubber sealing element used in oil seals.

## Foley Elected To Agency Post

Paul Foley (photo), vice-president and manager of McCann-Erickson, Inc, Detroit, has been elected a senior vice-president and member of the advertis-



ing agency's board of directors.

Foley joined McCann-Erickson after working ten years with a Detroit advertising agency serving automotive clients. During World War II he worked on the overseas staff of the Office of War Information. He is also a former member of the Associated Press' foreign bureau.

## Maremont Names New Division Head

Maremont Automotive Products, Inc, Chicago, announced the appointment of E. T. Syvertsen as director of a new market development division.

Syvertsen will guide the expansion of Maremont's replacement parts business. He is a former general manager of Thompson Products, Inc. automotive replacement division.



The "Arthritis Drive" of Worcester County, Mass. will benefit from the above \$500 check donated by the area's automotive jobbers. Here Joseph Leavitt, jobber association president, shows the check to William Lang, vice-president of City Auto Parts. Looking on are, from left: John Koehler, Worcester Rim & Wheel Co, and William Christie, Christie & Thomson.

## MEWA Heads, Faculty Confer

Executives of Motor and Equipment Wholesalers Association met recently with Illinois University faculty members to map the curriculum for MEWA's "Top Management Institute," a week-long executive training

program scheduled May 11-16 at the University of Illinois.

The midwest program will emphasize all phases of profit and volume-building methods of automotive wholesaling. Similar to the midwest institute, MEWA will sponsor a Sales Management Institute at the New York City University, March 23-28.



The group of affable gentlemen above pause momentarily during the Grey-Rock National Sales Conference, held in Lancaster, Pa., December 10-13. Grey-Rock sales manager, Jim Wheatley, explained sales and promotion plans for 1958.

### Industry Meetings

Feb. 18-19, 1958—Motor & Equipment Wholesalers Association convention, Statler Hotel, Los Angeles.

Feb. 18-19—National Standard Parts Association convention, Ambassador Hotel, Los Angeles.

Feb. 20-23—Pacific Automotive Show, Pan Pacific Auditorium, Los Angeles.

Mar. 31-Apr. 2—Canadian Automotive Wholesalers & Manufacturers Association convention, Royal Alexandra Hotel, Winnipeg, Manitoba.

Apr. 23-25—Southeast Automotive Show trade conference, Bon Air Hotel, Augusta, Ga.

Apr. 27-29—Michigan Automotive Wholesalers Association, Pantlind Hotel, Grand Rapids.

May 11-14—Automotive Engine Re-builders Association convention, Sheraton-Park Hotel, Washington, D. C.



Glen Touchstone (left), a DuPont refinish jobber in Atlanta, Ga. receives the first shipment of Official Products containing dealer promotion coupons from Grant Roy, president of Official Products Company, Atlanta.

## Wilkening Ups Ring Distribution

M. E. Wilkening, president of Wilkening Mfg. Co., Philadelphia, announced that an English piston-ring manufacturer has been licensed to produce the Pedrick Formflex "Equalizer" ring.

Hepworth & Grandage, Ltd., Bradford, England, will distribute Wilkening's "Equalizer" oil ring throughout the world, except in the U. S. and Canada. Production is expected early next fall.

### Automotive Wholesalers' Sales and Inventories

*Data from Bureau of the Census, Department of Commerce*

#### Per Cent Change

Region	Sales			Inventories	
	Nov. 1957 from Nov. 1956	Nov. 1957 from Oct. 1957	11 Mos. 1957 from 11 Mos. 1956	Nov. 1957 from Nov. 1956	Nov. 1957 from Oct. 1957
New England					
Middle Atlantic	-10	-5	+5	-7	0
East North Central	-3	-13	+8	+16	+2
West North Central	+5	-13	+10	+8	+3
South Atlantic	0	-7	+4	+2	+1
East South Central	-4	-9	+6	+11	+1
West South Central	-7	-19	+4	+2	+1
Mountain	-6		+4		-4
Pacific	+2	-13	+3	0	-3
United States	-2	-12	+5	+3	+1

## Indicators of Business Activity

*These figures are based on latest thirty-day reports*

	Latest Data	Month Before	Year Ago	Percentage Change from— Month Ago	Percentage Change from— Year Ago
<b>PRODUCTION</b>					
Motor Vehicles (Units)	621,704	670,867	682,506	-7.3	-9.1
Industrial F. R. B. 1947-'49 = 100 (Adj.)	139	141	146	-1.4	-4.8
<b>SALES</b>					
New Cars	500,000	408,534	514,061	+22.4	-2.7
Replacement Tires (Units)	3,629,734	5,350,238	3,875,909	-32.2	-6.4
Manufacturers (\$ Millions)					
Durable Goods	\$13,505	\$13,932	\$14,294	-3.1	-5.5
Non-durable Goods	\$13,881	\$14,132	\$14,186	-1.8	-2.2
Department Stores, 1947-'49 = 100	139	134	137	+3.7	+1.4
<b>GENERAL</b>					
Consumers' Price Index, 1947-'49 = 100	121.6	121.1	117.8	+0.4	+3.2
Civilian Employment	64,396,000	64,873,000	65,269,000	-0.7	-1.3
Unemployment	3,374,000	3,188,000	2,463,000	+5.8	+37.0

## **Adult Education Puts Money in Your Pants**

It is hard to get grown men to go to school when they have reached middle age—even a service school. Trade publications, like MOTOR AGE, are about the only means of adult education in our field.

And trade publications build your business for you by teaching your customers—the men who repair cars and trucks—how to use more and better tools and equipment, do more and better repair work, and manage their business better.

This makes your business grow.

So it is to your advantage to do what you can to remind your customers to read and study their trade papers. If you will devote a few minutes in every meeting to talking about the help they can get from reading a publication like MOTOR AGE, using as an illustration an article on management, or merchandising or servicing in your current copy, it will fatten your pocketbook in two ways:

1. It will make better prospects for you by improving your customers' business.
2. It will lead him to the steady advertising which your suppliers do to sell him the parts, equipment and supplies that are on your shelves.

Remember—a successful, profitable business is more often the result of painstaking attention to many little things, than the result of the explosion of a brilliant idea.

Encouraging your customers to read is one of those things.

**RUSSELL W. CASE, JR.**  
**PUBLISHER**

# MOTOR AGE

# newscoop

*AMA Drops Show Plans  
New Chevy Pickup Trucks  
Integral Body Frames  
GM's 50th Anniversary  
New Car Installments Up  
Tire Chains Get Boost*

## **AMA Drops Show Plans**

THERE WILL BE NO FACTORY SPONSORED national automobile show this year.... Automobile Manufacturers Assn. dropped plans for exposition second straight year.... Were to hold show in Fall to kick off '59 models.

AMA's decision has prompted New York dealers to discuss idea of holding what could be largest, most lavish auto show yet.... Automobile Merchants Assn. of N. Y., Inc., and Brooklyn-Long Island Automobile Dealers Assn. are studying possibility of sponsoring such show early in '59.

Show would be cooperative effort of four dealer groups in three states, including New York, New Jersey and Connecticut.... New York has never had large scale dealer sponsored auto shows.

## **New Chevy Pickup Trucks**

CHEVROLET WILL INTRODUCE three new pickup trucks in March.... New line will include two  $\frac{1}{2}$ -ton models and  $\frac{3}{4}$ -ton job.... Trucks will feature new styling, larger cargo boxes.

## **Retail Sales Soared In '57**

AUTOMOTIVE RETAIL SALES last year soared to record \$55 billion.... 10 per cent ahead of '56.... Sales by motor vehicle dealers up 8 per cent; parts and accessories dealers, 12 per cent; gasoline service stations, 10 per cent.

Wholesale value of replacement parts and accessories as estimated by Automobile Manufacturers Assn., totalled \$1.8 billion, or about \$23 million ahead of '56.... Figure does not include tires and batteries.

## **Auto Industry Quizzed**

SENATE TURNED EAR toward auto industry matters late in January.... Subcommittee looking for anti-trust issues.... Prepared to hammer away at automakers' prices for new cars.

Clue to intent of inquiry was invitation to Walter Reuther, UAW chief.... He was asked to be lead-off witness.... Auto company heads to follow.

## **Chicago Automobile Show**

CHICAGO AUTOMOBILE SHOW closed its most successful run in history .... Nine-day show attracted nearly 519,000 visitors.... About 25,000 more than last year.... Three single day attendance records were broken.

Visitors expressed keen interest in the 400 cars and trucks shown .... Show also included 100 foreign cars.

## **Integral Body Frames To Be Used More**

USE OF INTEGRAL BODY FRAMES will spread to more makes within next two years.... One of Big Three car companies will go to unit construction on all its cars in 1960.... Another one is considering it for 1961.

## **Improved Engine For '59 Cadillac**

REPORTS THAT CADILLAC WILL have brand new V-8 engine for '59 models are erroneous.... Present 365 cu. in. engine still has lot of life in it.... It was originally designed for compression ratio of 12 to 1.

Principal improvements on engine for '59 will include longer stroke, which could kick compression ratio and hp up higher.... And wider bearings in rear main to improve oil sealing, plus other engineering refinements.

## **Third Best Year Missed**

AUTOMOBILE PRODUCTION FIGURES released by AMA show '57 missed being third best year on record by only 2,360 units.... Output totalled 6,119,307 cars compared with 6,116,948 in '53, third best year.... '57 topped '56 total of 5,816,109 by substantial margin.

Car makers started out this year at a snail's pace.... They turned out only 167,752 cars in first two weeks, against 238,345 in like '57 period.... With makers continuing to slice output to balance off high inventories, observers predict first quarter output will drop between 14 and 17 per cent under '57 quarter.

## **Olds Sales Ahead**

IF YOU THINK GENERAL car-buying public is conservative or small car minded, look at Oldsmobile sales.... Olds sales have been running ahead of same periods a year ago.... Recent 10-day period sales soared by 31 per cent.

## **Safety Conference Scheduled**

LONG DISCUSSED SAFETY CONFERENCE between auto makers and governors will be held in Detroit, April 10-12, AMA announces.... Conference designed to tell governors what is being done to improve safety in automobiles.... Also reviewed will be various highway safety programs in which manufacturers have been engaged.

## **50th Anniversary For GM**

GENERAL MOTORS WILL CLIMAX its 50th anniversary with gigantic celebration at Flint, Mich., this August.... Actual birthday is Sept. 16, 1908, when W. C. Durant filed incorporation papers in New Jersey.

Within year, four companies, which were to become nucleus of present GM, came into the organization.... They included Buick, Olds, Cadillac and Oakland.

## **Prestige For Service Shops**

LOOK FOR ONE OF AUTOMOBILE companies to announce a revolutionary service program soon.... Program is designed to restore prestige of service shops.... It has been in works for some time now.... Expected to be made public within next two months.... Will be first in the industry.

## **How Much For Repairs?**

CLEARER LINE ON HOW MUCH CAR OWNERS spend in repair shops may come from new government budget plans.... President Eisenhower asks money for figures on selected service trades' monthly receipts.

He includes auto-repair shops in request. Federal spending for statistics now close to \$33 million a year.... It would be upped by \$2 million next year.

## **Cause And Cure For Accidents**

WELL-ARMED ATTACK on auto accident causes taking shape.... Sen. Monroney, D., Okla., drafting bill to have White House name commission to direct effort.

Group would study scientific findings on accidents.... Then propose cures for causes.... Would consider how to advance driver testing, road design, accident reporting methods.

## **"Department Store" Car Retailing**

TREND IN NEW CAR SELLING may surprise some federal officials.... In 10 to 15 years, buyer may find wide choice of unrelated makes--including foreign cars--under one roof.

## **Motor Vacations In '58**

THIS LOOKS TO BE A BIG YEAR--but maybe not best--for motor vacations.... View in Washington is that motorists will have more, safer highways to use.... They'll have wider choice of rooms, eating places.... Recreation areas will have more appeal.

But current state of business may depress vacationers. In first half of year, many may be slow to make travel plans.

### **Birth Rate Up**

BIRTHS IN U. S. hit peak in 1957.... Quick government check of returns for year turned up 4,318,000 new babies--and future buyers.... Number about 98,000 more than 1956.

Birth rate up to 25.3 per 1,000 persons.... Average family size rising.... Three-child, four-child families on increase.

### **Retailers Average Sales**

FIGURE EXPERTS IN GOVERNMENT find sales by retailers averaged \$1,145 worth for each person in U. S. in 1956.... Nationwide, sales for full year came to \$191.5 billion.

North Central states led in total volume, and West in sales per person.... North Central retailers' sales added up to \$59.6 billion.... Western selling averaged \$1,304 per person.

### **New Car Installments Up**

AVERAGE NEW CAR INSTALLMENT contract came to about \$2,600 in 1957, reports Federal Reserve Board.... That's a climb of \$200 from 1956 average and \$350 from 1955.

One cause of rise was higher finance and insurance charges.... List prices for most 1957 models were up.... Also, many 1957 contracts were to run longer.

### **Tire Chains Get Boost**

TIRE CHAIN USE GOT A STRONG PLUG at Highway Research Board annual meeting.... W. F. Milliken, of National Safety Council's committee on winter driving hazards, told conferees: Snow tires are 28 per cent better than regular tires for traction on icy hills.

Regular chains are 231 per cent better than regular tires.... Reinforced chains are 409 per cent better.

### **Reassembled Transmissions Taxed**

INTERNAL REVENUE SERVICE explains the excise tax on reassembled auto transmissions.... Tax must be paid on rebuilder's sale if any parts were machined for reassembly.

This tax covers the complete, reassembled transmission, when it is sold.... If reassembler uses all new, tax-paid parts, excise is not collected on complete unit.

### **Car Thefts Increase**

CARS CAUGHT FORCE of serious upsurge in crime during 1957.... FBI agents worked on theft cases that led to recovery of more than 16,000 stolen autos.

All these were taken across state lines.... In year before, FBI helped track down 15,200 missing cars.

# THE HIGHWAY PROGRAM

and how it affects your shop's location



THIS year, 1958, is to be one of visible progress in the vast job of modernizing the nation's roads. Builders in all parts of the country will be at work on long-planned expressways, feeder routes, and city thoroughfares.

Many of these highways and streets had been sketched before 1956. That was the year when Congress voted into law a means of financing roadbuilding on a mammoth scale. It was called a \$33 billion program. But that amount is just a starter in what

*(Continued on page 38)*

## The HIGHWAY PROGRAM...

Continued from page 37



may become a \$100 billion investment in traffic comfort and safety.

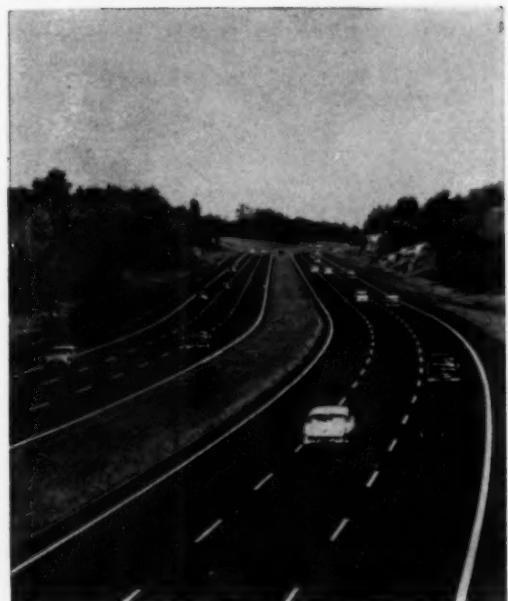
If 1956 was Enactment Year for the program, 1957 could be called Design Year.

Engineers, aided by electronic "brains," figured materials and labor needs and costs. Draftsmen draw up detailed plans for road sections, bridges, and interchanges. Buying of right-of-way, expensive and time-consuming, was in motion.

These actions, and the letting of contracts to highway builders, all are necessary. They had to be done before clearing, grading, and paving could begin.

### Takes almost Two Years

Best estimates made in Washington show



it takes about 21 months to lay out and put under contract a complex road project. Then it takes another 24 months to perform the building and open the road in complete form.

To you, the businessman and taxpayer, the wait for new roads that will help your city may have been unduly long. That is especially true, for example, if you operate a body repair shop in Plattsburg, N. Y. It's equally true if you have an auto dealership in Ocala, Fla. Or a service station in Tremonton, Utah.

These are three of the many communities that are to be served by the scheduled 41,000-mile system of interstate highways.

#### How It Will Affect Your Business:

The nationwide Highway Program will change the traffic pattern of your community. Through highways, bypassing cities and towns, will have three important influences on the locations of automotive service retailers:

1. Bypassing towns will free up Main Street traffic congestion. Through traffic will go around your town. There will be more room on Main Street for local customers.

2. Bypassing towns will set up new business centers at major interchanges along the superhighways. Local customers will be lured out to these centers. Bigger shopping areas, with easier parking, will tend to drain local traffic away from Main Street.

3. Superhighways will encourage long distance driving to get to work. And for shopping. Business centers at interchanges can attract customers from areas up to 50, 60 or 70 miles away. Cars will be used more and need more service.

The changing traffic pattern will bring up important questions about your store location for the future. Should you "come out of the back alley" and on to Main Street?

Will a boom in local traffic make a center-city location more attractive? Should you go out to a highway interchange location? Will you attract customers from your old location? Or will you have to start building traffic from scratch?

Should you stay on Main Street and build a second place out along the highway?

Those broad new thoroughfares you've been expecting aren't as far away as they

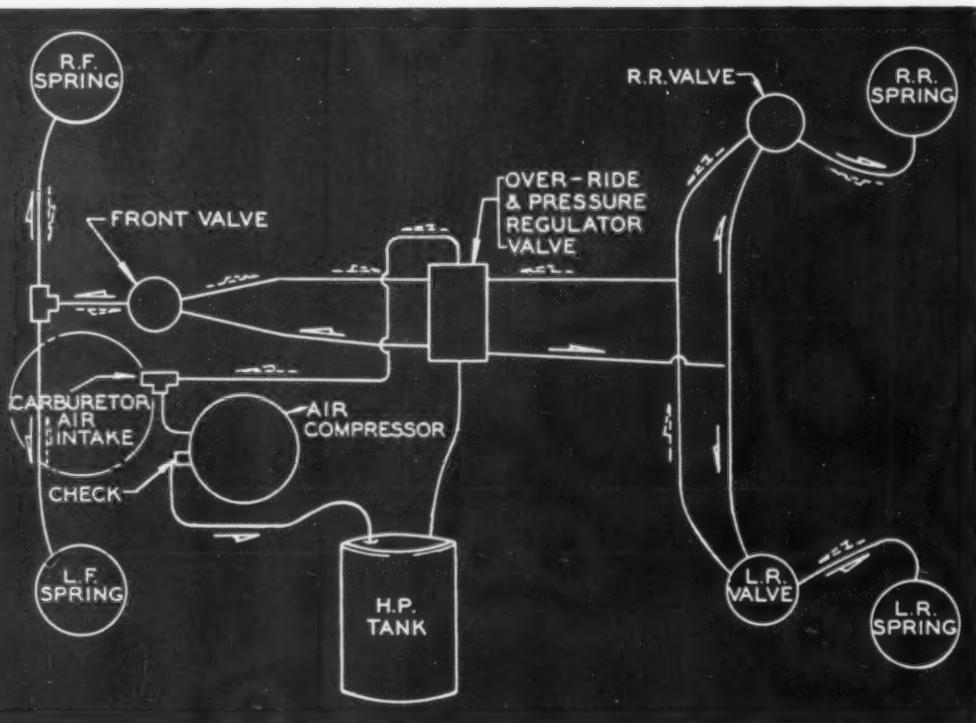
(Continued on page 96)

#### What happens to sales when through traffic bypasses a community:

Here is a study made by the California Division of Highways of what happened to sales of businesses along old bypassed routes when through traffic bypasses were built around these eight communities.

The communities		Number of businesses bypassed	This is what happens to sales in:	
Name	Population		service stations	all other businesses
Templeton	600	24	+ 1.82%	+20.34%
Folsom	1,706	36	+ 5.0	- 1.0
Imperial	1,736	21	+ 2.72	+ 0.5
Anderson	2,200	21	-31.0	+22.0
Auburn	4,577	74	+21.0	0.0
Fairfield	5,000	109	-12.1	+ 7.5
Sacramento	6,016	224	+25.5	+21.5
Escondido	6,608	67	+25.6	+12.7

Source: "How Bypasses Affect Business," Chamber of Commerce of U.S.



Schematic view of all the air suspension components used on Pontiac.

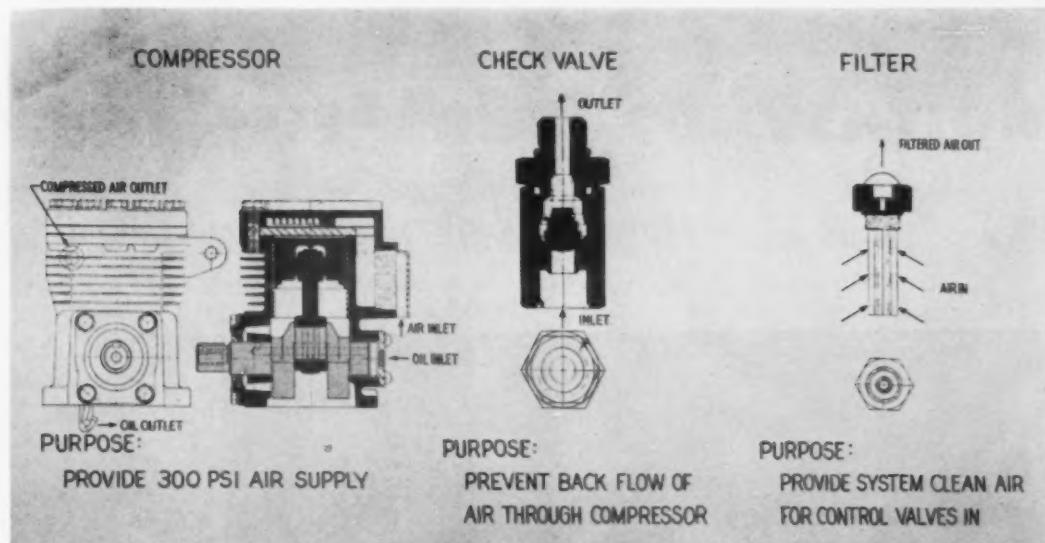
## Jacking and towing tips for AIR SUSPENSION cars

**A**IR suspension is a popular option on many of the 1958 cars. How should it be serviced? How do you tow? Where are the air suspension controls?

Starting with GM cars we should note that on Buick, Cadillac, Oldsmobile and Pontiac the most serious caution to remember is that if one side of the car is jacked up, a system that is acting properly will immediately attempt to level the car. It will do this by admitting air to the balance of the rest of the system. If the car is to be jacked up to change

a tire, pull out the manual control valve on the dash. The car will raise to its maximum height until the upper suspension arms strike the rebound bumpers. From this position, any wheel of the car can be jacked up in the normal manner and the tire changed.

On GM's Chevrolet Division cars, follow this procedure: Before jacking the vehicle, raise the hood and reach down on the left front [just above the steering box in back of the air storage tank] and shut off the manual control shut off valve. This will prevent



Above is shown a cutaway view of the system used on Mercury cars.

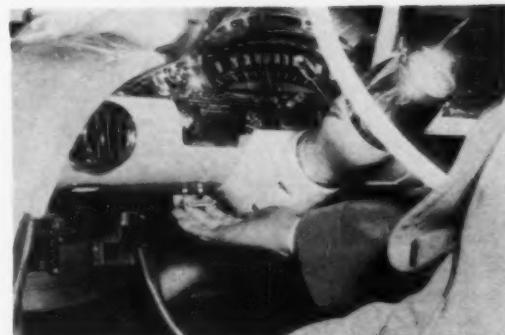
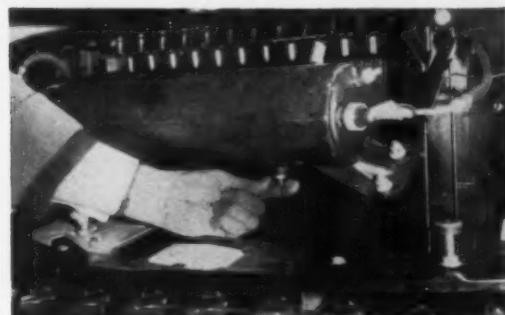
*Procedures and cautions  
to bear in mind when  
called upon to service  
cars with air suspension*

the system from functioning while the car is being jacked up.

Before these vehicles are jacked or raised [Ford or Mercury automobiles] shut down the engine to stop the air compressor from operating. Release the pressure from the storage tank. This can be done at the water drain cock at the bottom of the storage tank. Once the pressure has been released or until the car intends to settle all over, shut off the valve and then proceed to jack the vehicle.

*(Continued on page 90)*

Reserve tank location on Cadillac models. Petcock is used to drain the condensation.



Above is shown the location of the manual control valve on the Oldsmobile.

## "To Sell-Serve" theme

*Automotive dealers convene in Miami for*



1958 NADA officers, left to right: Dean Chaffin, president; Birckett L. Williams, 1st vice president; Herbert L. Galles, Jr., secretary and John H. Lander, treasurer.

THE National Automobile Dealers Association, representing almost 30,000 franchised new car and new truck dealers, held its forty-first annual convention in Miami Beach last month. Theme of the January 11 thru 15 gathering was "To Sell—Serve."

Held concurrently with the NADA Convention was the eleventh annual Equipment Exhibition. All booth space for the Exhibit had been sold weeks before the opening.

Service played an important role in the minds of the convention delegates during the initial two days of sessions. Charles B.

Tutan, NADA convention committee chairman opened the meeting. Included in the first service sessions were John H. Lander, NADA director for Georgia; Charles A. Klaus, vice pres., Maremont Automotive Products. The latter spoke on "Muffler Service and Profit."

The second half of the opening day's session centered around Used Car Problems. The lineup here followed this pattern:

Charles C. Freed, Utah NADA Director spoke on "After 30 Years a Problem Becomes a Profit;" H. L. Galles, Jr., New Mexico NADA Director, talked on "NADA

# dominates NADA CONVENTION

five days. Eddie Rickenbacker delivers keynote address

## About the New NADA President . . .

NADA's new president, Dean Chaffin, is a Chevrolet-Buick dealer of Bozeman, Montana. He was elected in 1950 as NADA director for his state. He served continuously since that time on national and state level. Chaffin was former chairman of the National Affairs Committee and former member of the Industry Relations Committee.

He is an NADA representative to the Inter-Industry Highway Safety Committee and served as NADA's first vice president last year. He is president of the Montana Council for Traffic Safety and the Montana Economic Council, and is presently serving his sixth term in the Montana House of Representatives.



Lovely model, above, participated in fashion show for NADA ladies.

Used-Car Guide and Its Importance to You;" and Clarence Staufenbeil, national used car manager, Cadillac Motor Car Division, General Motors Corp., spoke on "Reconditioning to Turn Used Cars into Cash."

### Vital Role for Service Dept.

Dealers returned to Miami Beach Auditorium Sunday afternoon for the final series of talks on service. Leading off was a speech by Jack Hayman, merchandising manager, Dupont and Co., Wilmington, Dela. His subject: "Potential Profits in Tire Merchandising."

Philip B. Hopkins, director, service development and training, Chrysler Corp., followed this with a presentation entitled

"Recruiting and Training Service Technicians—Industry's Number One Challenge." The final speaker on this portion of the program—Dave Reese of David Reese Oldsmobile Co., Philadelphia—presented a talk on "Service Absorption vs. Sales Absorption." [Mr. Reese's talk is carried elsewhere in this issue . . . see pages 48, 49]

NADA President Frederick M. Sutter, delivered his annual report at the convention. He has been an NADA member for 25 years and a director since 1947.

The keynote address of the NADA convention was delivered by Eddie Rickenbacker, American aviation hero and now

(Continued on page 112)



Normal Condition: Insulator is tan or brown. Light deposits may be sticking to insulator & shell bore.



Carbon Fouling: Dry, fluffy soot on electrodes and insulator generally a result of over-rich mixture.

## SPARK PLUGS

### care, cleaning and correction

By John K. Montgomery, Technical Editor

**O**N today's new modern high compression engines spark plugs are playing a more important part than ever before. They are subjected to longer periods of idling. Congested traffic conditions for example. Plugs accumulate more heat due to the added accessories such as the air conditioning, compressors for the air suspension.

Most factories recommend cleaning spark plugs every 5,000 miles and replacing them at 10,000 miles intervals. Plugs must be designed to handle all types of temperatures. Temperature of a mixture in a modern en-

gine is approximately 1500 degrees F. This means that every point in the cylinder must operate below this temperature if pre-ignition is to be avoided.

#### Limiting Temperature

This means that the plug chosen for a particular engine must always remain below this limiting temperature. That is why the correct heat range is important.

What happens to a spark plug in a cylinder during the explosion? The plug is subjected to a temperature of approximately 4,000 degrees F. Immediately after the explosion during the suction stroke, the plug is rapidly cooled by fresh gases entering the cylinder at a temperature slightly above atmospheric temperature.

*Sparkplugs play a more important part than ever before in today's high compression engines. Here's tips on servicing them*



**Burning:** Whitish appearance of insulator indicates burning. This may be caused by incorrect heat range.



**Oil Fouling:** Oily deposits on electrodes caused by incorrect heat range or oil getting past rings.

The pressure varies from approximately minus 10 during the suction stroke when the engine is idling to from 400 to 600 pounds per square inch during the explosion with wide open throttle.

#### **Service Procedures**

Before removing the plugs, clean the area around the spark plugs with compressed air to prevent any particles from entering into the cylinders. Remove the plugs and examine the firing ends of the plugs noting the type of deposits and the degree of electrode erosion. The various types of spark plug fouling and the normal condition of the spark plug after usage should be observed.

Oil fouling is usually identified by wet,

sludgy deposits. These are traceable to excessive oil entering the combustion chamber through worn rings and pistons; excessive clearance between the valve guides and stems; worn or loose bearings.

Gas fouling is usually identified by dry, black, fluffy deposits which result from incomplete combustion. Too rich a fuel air mixture can cause incomplete burning. In addition, a defective coil, defective break points, distributor cap, or a defective cable can reduce the voltage supplied to the plug and cause misfiring.

Burned or overheated spark plugs are usually identified by a white, burned, or blistered insulator nose and badly eroded electrodes.

*(Continued on page 125)*

# Learn and earn with auto AIR CONDITIONING

*An informative report*

By R. V. Anderson, Consulting Engineer

Mark IV division, J. E. Mitchell Co.

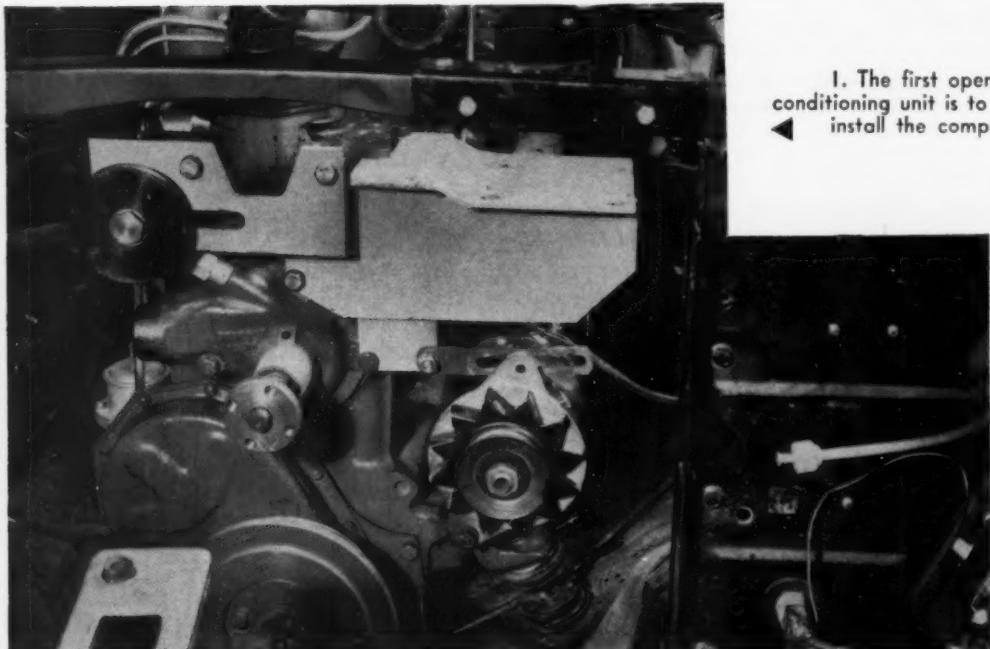
**E**VERYONE is talking about automobile air conditioning, and a lot of people are doing something about it. Lots of people are buying it, so there must be someone selling it. Not since the advent of the automobile radio and heater has there been a hotter item than a refrigerated car air conditioner.

Although you may have heard a lot about it, maybe you think you aren't equipped to

install or service car air conditioners. Maybe you are afraid of it. Maybe you think it's too specialized; that eventually you will "pick it up" from some one else. Well, if you think like this, you may be missing the boat.

You might be interested in who is selling automobile air conditioning equipment and whether they are making any money doing it.

There are a wide variety of firms in this business who have neither had a great deal of experience nor have had to invest a lot of



1. The first operation in installing the air conditioning unit is to remove the radiator and  
install the compressor mounting brackets.

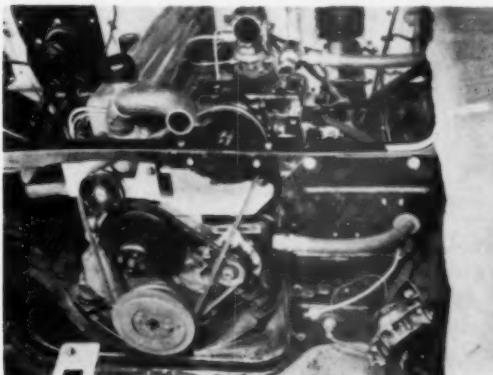
## *on requisites for this business*

money to learn. These businesses are wheel alignment and front end specialists, tire dealers, independent garages, car dealers, automotive paint specialists, and even some TV dealers and super service stations. All of these people had a few things in common:

- A. Success in their original business.
- B. Desire to learn and establish themselves as experts.
- C. Pride of workmanship in what they do.

*(Continued on page 120)*

2. When the compressor is in its correct position it is now time to attach the lines from dash.

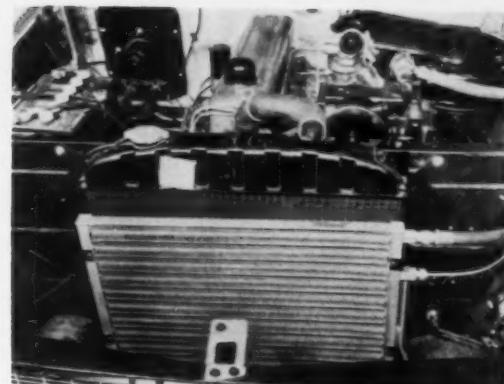
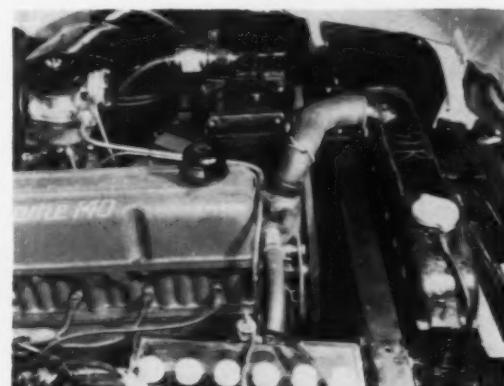


5. Evaporator is mounted in front of radiator. A ► sensing element is located at evaporator to prevent icing.



▲ 3. Close-up view of the compressor and magnetic clutch. Note how the radiator support was re-worked to provide clearance for the clutch pulley.

4. Viewing the air compressor and the air cleaner mounting from the right side of the engine.



# SERVICE absorption

VS.

# SALES absorption

By Dave Reese, President, Dave Reese Oldsmobile, Drexel Hill, Pa.



LET us take a realistic look at our business. We have extensive facilities. Many of us with new buildings, used car lots, high interest cost on mortgages, interest on new car floor plans, high advertising costs. Then there are fringe benefits such as vacations, medical and life insurance costs, dealer and executive salaries and many other expenses which have no direct bearing on the service department.

If we agree to this then why in the world should the service department be kicked around because it doesn't produce enough gross profit to absorb the entire overhead expense?

### Unfair to Service Dept.

There are no more reasons for the service department to carry the load than there are for the sales department to support the entire expense. According to our last NADA composite figures, the average service absorption was 55 percent in all line groups. On that basis, with the net profit almost zero, the sales department would only carry 45 percent of the overhead expense. Maybe if the sales department were made responsible for the entire overhead expense, salesmen

*A popular figure in the dealership world takes a realistic look at service dept.'s role*

would make better deals; produce more profit to absorb the whole expense load.

We do have some dealers who have 100 percent service absorption. They are the rare exceptions. In most cases they are old established dealers who have a tremendous volume of service business in facilities owned and paid for in the years gone by.

With low overhead expense in comparison with their volume, these dealers are to be complimented. But I do not feel that their operations can be used as a pattern for dealerships not so fortunate as to location, low cost facilities and available potential.

### CHART A . . . SALES AND SERVICE PROFITS

1957 M.P.G. Dealer	Gross Profit Sales Dept.	Gross Profit Service Dept.	Gross Total	Service Dept. (%)
January	\$23,925	\$14,168	\$38,111	37.2
February	29,581	9,204	38,785	23.7
March	16,287	9,934	26,221	37.8
April	15,325	12,161	27,486	44.2
May	18,675	12,886	29,471	44.2
June	12,105	12,144	24,249	50.0
July	14,683	11,677	26,370	44.2
August	24,976	11,452	36,428	31.4
September	12,404	9,789	22,483	43.7
October	11,048	11,670	22,918	51.7

### CHART B . . . 10 MONTHS 1957

Gross Profit	Sales Dept.	Service Dept.	Total Gross	% of Total Service
Dealer A	\$166,326	\$115,029	\$281,355	40.8
Dealer B	102,772	86,696	189,468	45.7
Dealer C	179,055	157,253	346,308	49.2

### CHART C . . . SERVICE ABSORPTION VS. SALES ABSORPTION

	Dealer A Per N. C.	Dealer B Per N. C.	Dealer C Per N. C.
Car Profit	\$294	\$331	\$134
Fixed Expenses	\$467	\$388	\$314
Service Gross	\$667	\$507	\$177
Fixed Net Loss	\$269	\$181	\$137
% Absorption—Service	88.9	88.3	88.3
% Absorption—Sales	80.1	80.0	42.6
Operating Net Profit	\$ 93	\$170	(33)

#### Discard Term: Service Absorption

Now let's talk about the right viewpoint for the dealer in regards to his service department. First, I think we should discard the term service absorption. We should departmentalize our business. Have a balanced operation. Each department should stand on its own feet. Absorb its share of the expenses on an allocation basis.

This method should show a net profit for any good service operation. This would encourage the service manager to do a better job. He need not measure his results on the

service absorption basis which might be 55 or 60 percent coverage. This puts him unfairly in the light as losing 45 or 40 percent of the overhead expense.

Now that we have the right viewpoint, let's get the right mental attitude towards the service department. Let's start taking the service manager to lunch to find out what we can do as dealers to keep him doing a better job. Find out about his problems. Discuss his organization and analyze our facilities. Do we have sufficient space for

(Continued on page 130)



Chilled middleweight boxing champion, Carmen Basilio, takes time off to attach his "KO 1" New York state license plates. He sloshed through three inches of snow to make the switch. Carmen is awaiting a rematch with former champ, Sugar Ray Robinson.



## HUMAN EVENTS

Starting his career early, Michael Siefert tries his hand at greasing a car at a service station. He believes that a seven-year-old youngster is not too young to think about his future.





While looking at this picture of a pretty model gracefully posing, recognition should be given to the patient photographer. He must also show the model how to arrange herself before taking photo.

No soft bed, this! Indian yogi expert lies on bed of broken glass as a heavy truck with fifty passengers aboard is driven over his body. This unusual event occurred at the fifteenth World Vegetarian Congress held in New Delhi, India.



Cindy O'Hara doesn't seem to mind a bit as front wheels of a seven-ton revolutionary Rolligon truck passes over her as she lies in a pile of sawdust. Cindy was "Miss International Auto Show" and stunt was to publicize show's opening.



# FOREIGN CARS and the AMERICAN Market

ONE of the major automotive events of 1957 was the U. S. registration of some 200,000 foreign cars. This in itself is not an immediate threat to the American industry. The figure represents slightly more than three per cent of domestic production.

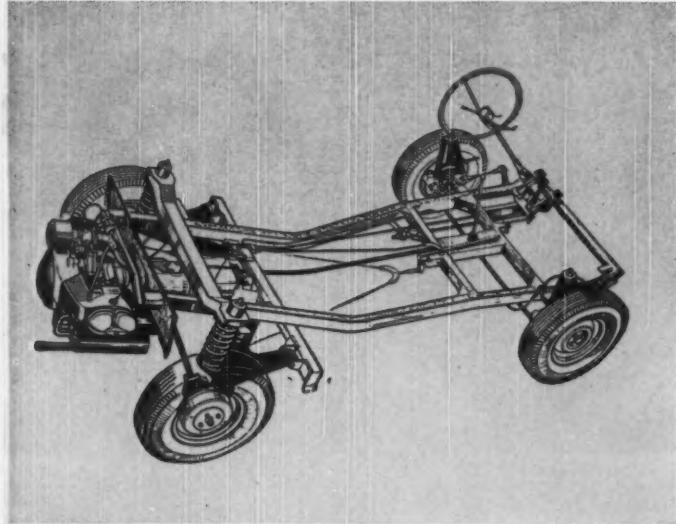
But it does prove that an important segment of the buying public was attracted by the small, economical, low-priced cars. And this fact poses a dilemma for the industry.

*A study of the imported small car and its effect upon the American Scene*

By Joseph Geschelin  
Engineering Editor

Right: Rambler American built in America is in "compact" car class. Wheelbase of this car is 100 in.

Below: Manufactured in Britain, the new Isetta "600" has its air cooled engine mounted on the back of the car chassis.



Why are people buying foreign cars? Is it a question of price or fuel economy? Or is there some element of fashionable appeal in the foreign models?

Before a domestic producer can meet this competition, he must have a clear picture of the market. The fact remains that previous attempts have failed. If there is a strong, stylish appeal to foreign cars, perhaps the public would not be lured by an American small car.

This happens to be the climate for Amer-



ican Motors. If its 1958 line is successful it should prove that the public wants small, economical, relatively low-priced cars. And, more important, that they will buy an American model! A prosperous year for AMC will establish it as a solid small car competitor.

Styling and engineering are in a state of flux today. Consider first the engine. It is apparent that reciprocal version is here to stay, but what about size and output? Oper-

*(Continued on page 116)*

Top: View of 600 new Fiat cars from Italy after unloading at Los Angeles harbor. Ship in background is Fiat's own trans-ocean auto ferry.

Left: The Austin A-55 Cambrian is a British built four-door economy sedan. It has a four forward speed gear shift. Overdrive is optional.

Right: The new Singer Gazelle convertible from Britain has a 4-cylinder 91.63 cu. in. engine. Length is 13 ft. 7½ in. Height, 4 ft. 10 in.



## Basic education

## TROUBLE SHOOTING

*Mechanics of all ages will find this article helpful as a guide to help decide the proper steps to take after customer reports trouble.*

*The right hand column shows principal causes; the more common ones are marked with a dot:*

### **Customer Reports . . . . .**

### **. . . . . Mechanic Knows**

#### **Starter won't turn engine, but lights stay bright**

- a. open circuit at starter
- b. the solenoid is open or stuck
- c. starter switch is defective
- d. brushes are seating improperly
- e. starter drive is broken or stuck

#### **Starter turns over, but engine won't start (engine not getting fuel)**

- a. defective fuel pump
- b. fuel selector valve turned on empty tank
- c. defective fuel line
- d. defective flex fuel line
- e. no fuel in tank
- f. defective carb. float (heavy)
- g. clogged fuel filter
- h. ice in fuel system

#### **Starter turns over, but engine won't start (engine not getting spark)**

- a. points not opening
- b. corroded or burnt points
- c. defective ignition switch
- d. open circuit in pigtail wire
- e. shorted pigtail wire
- f. condenser open or shorted
- g. cracked primary insulator
- h. defective distributor cap



## **Customer Reports .....**

## **..... Mechanic Knows**

### **Lights go out as starter is depressed**

- a. battery is down or cell is defective
- b. battery cable is loose
- c. terminals are corroded
- d. starter motor is shorted
- e. engine seized

### **Lights dim as starter turns engine**

- a. starter drive is jammed
- b. commutator is dirty
- c. there is resistance at starter switch

### **Engine misfiring at all speeds (not enough power to pull hills)**

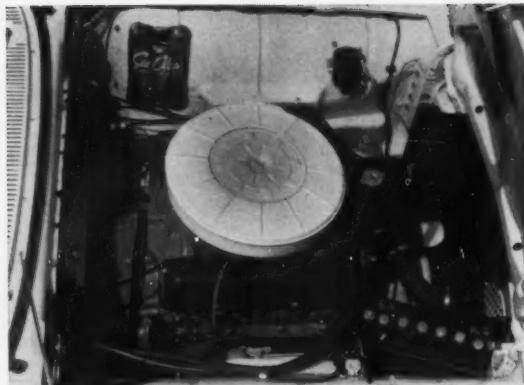
- a. defective spark plugs
- b. defective breaker points
- c. incorrect breaker point gap
- d. defective sticking or bouncing breaker arm
- e. defective condenser or coil
- f. loose connection in primary circuit
- g. defective ignition switch
- h. worn distributor shaft bushings
- i. defective high tension wires
- j. defective carburetor
- k. defective intake manifold
- l. broken valve spring
- m. valve sticking open
- n. valves warped or burned
- o. incorrect valve tappet clearance
- p. defective valve seat
- q. broken or stuck piston rings
- r. broken piston
- s. defective head gasket
- t. ignition timing advance too far

### **Engine idles normally but cuts out at high speed**

- a. defective ignition coil
- b. defective ignition points
- c. defective spark plugs
- d. defective ignition condenser
- e. worn bearing on breaker plate
- f. defective vacuum control
- g. defective governor
- h. worn distribution shaft bushings
- i. cracked distributor cap
- j. defective high tension wires
- k. defective carburetor
- l. broken valve spring
- m. defective fuel pump

### **Radiator boils**

- a. insufficient water supply
- b. clogged radiator
- c. restricted air flow
- d. shutter not opening
- e. defective thermostat
- f. broken fan belt
- g. slipping fan belt
- h. cracked cylinder head or block
- i. water hose collapsing under suction
- j. defective pump impeller
- k. blown cylinder head gasket
- l. incorrect cylinder head gasket



A larger 352-cu. in. V-8 engine will power the new Thunderbird.

The new Thunderbird styling.



## THUNDERBIRD now 4-passenger

*A longer and wider version has retained its '57 height*

**C**OMPLYING with consumer wishes for greater space and ease of entrance, Ford Motor Company has ceased production of its two-seater Thunderbird. Unveiled as its successor is the Thunderbird fourseater, also a two-door hardtop.

The new Thunderbird is longer and wider, but no higher, than its predecessor. Another change has occurred in the engine where a larger 352-cu in. V-8 now rests. The new engine offers a four-barrel carburetor and

300 hp. Compression ratio is reported at 10.2 to 1.

Although the '58 Thunderbird has retained its 52-in. height, its interior head room is nearly the same as other luxury cars. Ford engineers have lengthened the car to 205-in., a conspicuous increase of 24-in. over '57 models. Its width has been upped four inches to 75-in.; its wheelbase to 113-in. The new model is said to have 1.5 times greater trunk capacity than original Thunderbirds.

Three different transmissions will be offered; the standard Ford interceptor three-speed synchromesh, overdrive, and Cruise-O-Matic. Rear axle ratios include 3.70 to 1 with manual shift transmissions; and 3.10 to 1

*(Continued on page 106)*

# CORVETTE offers new options



Room for two, the '58 Corvette has new grille, dual headlamps.

Controls flank steering wheel.

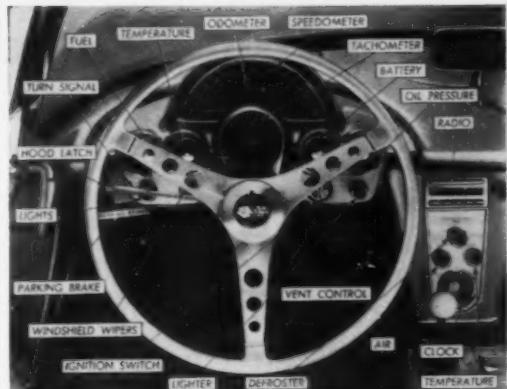
## *A sleek, low sports car offering many options*

THE rakish Corvette, sometimes described as America's reply to the European sports car, has placed its 1958 emphasis on optional equipment. Consumers will have a choice of four engines and three transmissions beneath the plastic body, as well as many convenience items.

A standard 283-cu in. V-8 engine has been returned with a four-barrel carburetor and 9.5 to 1 compression ratio. Options include the V-8 with dual carburetors, or with fuel injection. Also fuel injection with a special camshaft that provides 10.5 to 1 compression.

Transmission choices include close-ratio, three or four-speed units. These are the floor-mounted, stick-shift models, or the Powerglide unit.

Stepping inside the Corvette, we find a



rather revamped cockpit. The speedometer is individually mounted on the instrument panel, and the tachometer on the steering column. Battery and oil pressure indicators are of the gauge type. Another feature is a divider from the floor tunnel to the instrument panel. On this are the clock, radio, heater and defroster controls. A vinyl-covered assist bar is found on the passenger's side of the dash. At the end of the arm rests are reflec-

*(Continued on page 106)*



## Hardtop Added to **PACKARD** LINE . . .

*Four-car series established  
with three new models*

WITHHOLDING the introduction of a new two-door hardtop, a four-door sedan and a four-door station wagon until January, Packard is now fully in the 1958 automobile race with four models. In advance of the three models was Packard's stylish Hawk, a family-type sports car unveiled in October, 1957.

In keeping with the industry's low-profile trend, Packard's '58 bodies are noticeably, but not drastically, lower and longer. A for-



Packard's new and spacious four-door sedan.

ward-sloping hood with a trim air scoop graces the front end. Also, a gold strip has been extended from front to rear fenders. Buyers will find the Packard grille divided by a wraparound bumper. Protruding dual headlights are standard.

Examining the engine: Packard's latest three models are powered by a 289-cu in. V-8 which develops 225 hp. Torque is reported as 305-ft lbs at 3000 rpm; compression ratio at 8.3 to 1. All three models provide four-barrel carburetors. The Hawk engine, the standard 289-cu in. model, is equipped with a supercharger that boosts horsepower to 275.

(Continued on page 110)

# BODY SHOP TIPS

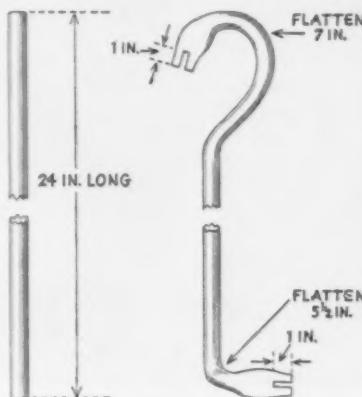
## Repairing Loose Strands On Tow Truck Cables

When it becomes necessary to cut a stranded wire cable for the tow truck, tow cable or hoist, I find that instead of wrapping the cable at both sides of the point of cut with wire or tape to keep it from unraveling or having to weld it at point of cut, I first burn off the tar or grease with the cutting torch. This is done by passing it back and forth a few times, six inches on each side of point of cut with the cutting lever depressed which cleans the cable for faster heating. I then heat the cable (any size) to a cherry red, six inches on each side of cut. I can then cut the cable safely without it unraveling. Then I cut ends to a point for easier lacing through shive wheels, if needed. When the cable is heated, it can be cut almost like a solid piece of steel. This process does not hurt the cable or weaken it because only six inches of the end has the temper taken out of it. *Nick Sichok, 774 Smith Alley, Johnstown, Pa.*

## Tool For Straightening Bent Bumpers and Fenders

Take an iron bar 24 inches long and  $\frac{3}{4}$  inches in diameter. Heat and flatten one end 7 inches and the other  $5\frac{1}{2}$  to a  $\frac{1}{4}$  inch thickness. Bend one end in the shape of a question mark and

put a square groove in one end  $\frac{3}{8}$  inches,  $1\frac{3}{4}$  inches and groove the end  $\frac{1}{2}$  inch deep and  $\frac{3}{8}$  inches wide. With this hand-made tool you can straighten out a lot of bent bumpers and bent fender edges. This tool is really



handy for many different chores around a garage or body shop. *Melvin L. Sutter, Haupli Pontiac Co., Downs, Kansas.*

## Speedometer Cables Guide Dome Lamp Wiring

In a turret top replacement job on a '56 or '57 Chevrolet or GMC truck or pickup, it is a rather difficult job to replace the dome lamp wiring after the top panel has been welded in place because of the construction of the top inner panels. It is also impossible to put the wire in place before putting the top panel on because the heat of the torch from welding the top panel

seam at the drip rail would burn the insulation from the wire. We do it with three discarded speedometer cables. One cable is run down the left hand windshield post from the sun visor hole back along the side roof rail until it comes out below the back inner panel. The third cable is run from the dome lamp opening to the corner until it comes out below the back inner panel. Now the ends of the cables can be smoothly taped together at the sun visor hole and pushed back thru the hole. The ends are also taped together at the lower back panel. We now have one continuous cable with which to pull the wiring back into place. *Don Baxter, Williams Auto Co., 1114 10th St., Woodward, Okla.*

## Pipe Cleaners Used To Touch-Up Scratches

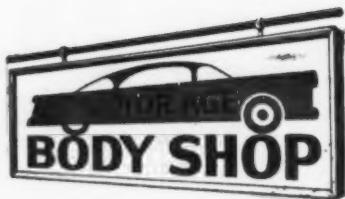
Many times a small, touch-up auto painting job doesn't rate using a brush that you'll have to clean. Simply double pipe cleaners and later throw them away. They apply paint evenly on scratches or nicks. *Charles V. Mathis, 6311 Park Boulevard, Wildwood, N. J.*

## BODY SHOP TIPS

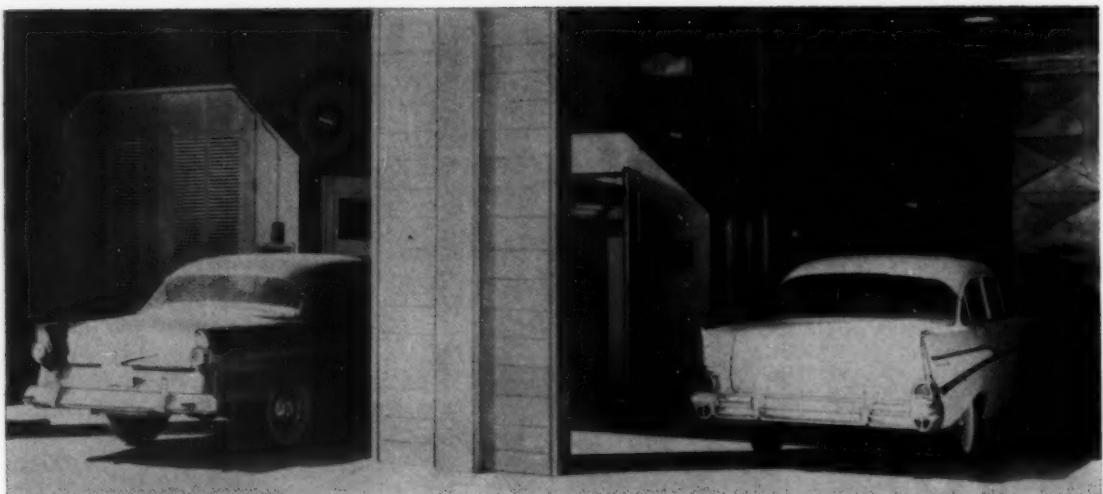
are worth

**\$7.50**

If you've developed an idea that has helped you to do body and fender work or painting better or faster, it may be worth money. Jot down the idea and, if necessary, make a rough sketch. Sometimes a snapshot will help. Just make the description of your BODY SHOP TIP clear, and if it is used, you'll receive a check for \$7.50.



## Paint department



Above is shown the paint department building. It is equipped with a spray room, far left, and a bake oven. Preparation area is directly in front of the booth.

*Placing paint department in a separate building has really paid off in increasing business*

WHEN Odin's Chevrolet, Albuquerque, New Mexico, built their new dealership, they placed their paint and wash departments in a separate building.

This reduced fire hazards. Also, it lowered the insurance rate. As laid out, the building

prevents any backtracking from the metal shop.

The metal shop's back door and the paint department's front door are directly opposite. Therefore, cars leaving the metal shop are run directly into the paint department.

The paint department building is equipped with a spray room, which is also used for air-drying, and one infra-red bake oven. There's a paint room where all materials are warehoused and colors are mixed.

Directly in front of the two spray and bake rooms, is an area for preparation. Cars taken from the oven are kept alongside the bake oven until delivery. On one side of the building is a panel of louvres. During the fall

## thrives in SEPARATE BUILDING



Above is shown the crew working on car in the paint department. Note the uniforms worn by the men.



Sprayman mixing a color in mix room. Room is always kept spotless by wiping up spilled paint immediately.

and winter months fresh air is drawn in against rows of gas burners. The warm air, after passing through filters, keeps the preparation area at a constant temperature: 75 degrees; the same temperature of the spray room. Heat is controlled by a thermostat.

Bill Maes is manager of the paint department. He has an unconventional set up. After the cost of materials have been deducted, Bill gets 60 percent of the gross, paying his own employees out of his 60 percent.

From the start, Bill has gone for quality. While it took him a little while to build up the department's reputation, it has paid off.

In the 7 years, Bill has had one "come-back" and that was adjusted through Odin's

front office. And the adjustment was so fair, the customer immediately rushed Bill another car to paint.

A customer drove in to get an estimate on painting his Olds. The quoted price: \$110.00. The customer promptly told Bill to go ahead. The job was his. And he further stated that he had been given a figure for half that amount, \$55.00.

Curious, Bill wanted to know why he let him have the job. The customer's answer was prompt and direct. He knew Odin's paint jobs. And he further qualified himself by adding that he knew he would only get what he paid for. And he didn't want a \$55 paint

(Continued on page 124)



The Washington Monument and its historical companion, the Potomac River, form a backdrop for pretty Carolyn Davis who is enjoying a recent break in the mid-winter weather.

**MORE  
HUMAN EVENTS**



"Joe," a 14-month-old cat, rests contentedly after riding unnoticed 400 miles from Shelbina, Kan., to Springfield, Ill., under the hood of his master's car. Three smiling youngsters happily note Joe is as healthy as ever.



Bob Dietch of Fairlawn, N. J. shares a window of a station wagon with, of all things, his pet lion, Elvis, who weighs a mere 190 lbs. The two attended the recent festival of pets in New York's Coliseum.

► Rumors of unidentified flying objects came out of the Southwest last fall. Martha Kenley, Texas Tech co-ed, pauses to ponder this sign erected outside of Lubbock, Texas where a peculiar cigar-shaped object was seen hovering in the air by motorists.



Bongo, a five-year-old chimp, startles Miami motorists as he pays the traffic lights no heed. A man tries unsuccessfully to coax Bongo back to his cage.



**Sell**

Salesman P. M. Daugherty introduces a customer to particular tread features.

*An uncomplicated story of friendliness and salesmanship is paying off in tire sales*

**J** H. BAILEY who owns and operates Bailey Garage, Mesilla Park, New Mexico, is happy indeed with his tire business.

On a thousand dollar inventory, he is doing, on an average, \$800.00 a month.

J. H. Bailey has operated this garage, fronted with a three-pump service station for the past 30 years. And, at times, he has oper-

## the TIRE not the price . . .



On a \$1,000 inventory, this shop (above) yields a monthly volume averaging \$800.

A satisfied tire customer returns with a friend. Half of the customers are "referrals."



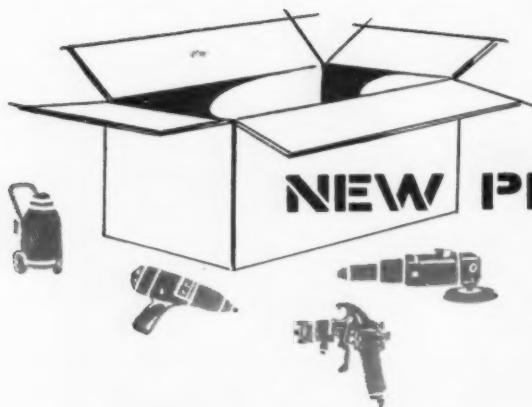
ated without tire sales. But the tires, he finds, are not only profitable in themselves, they attract and hold customers. Consequently, he is never very long without a line of tires.

P. M. Daugherty is the tire salesman, along with his other independent garage chores. We mention that he's a salesman, for salesmanship is what accounts for this shop's profitable venture with tires.

Bailey's are surrounded with the "usual cut-rate competition" which they completely ignore. They sell product and service. And miss very few sales.

Long in the automotive field, Daugherty is well acquainted with the fact new faces come around for one reason: They are dissatisfied with their last place of purchase. Seldom is

*(Continued on page 127)*

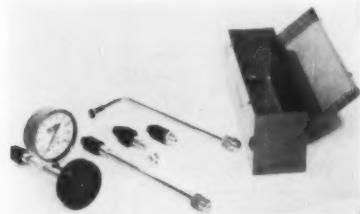


## NEW PRODUCTS

## SHOW WINDOW

### 131. Compression Gauge

**Allen B. Du Mont Laboratories, Inc:** A compression gauge is offered among the company's new



line of automotive test equipment. The gauge, type 934, is said to test individual cylinder compression of all vehicles. Using a 0-250-lb scale, the gauge retains readings until a release valve is discharged. The company claims the gauge is offered in a metal case. Included are five adapters for access to recessed spark plug ports.

### 132. Compression Ring

**Hastings Mfg. Company:** A non-breakable ring has been developed to maintain the power of high compression V-8's. Entitled Duo-Chrome, the ring is allegedly made of two-piece steel with beveled, chrome-plated edges. According to company, the steel sections eliminate breakage, while the beveled, chrome-plated edges provide free-line contact.

The two sections are installed with the gaps opposite each other. This design eliminates compression loss through end clearance. The ring is offered with the company's piston ring sets.

### 133. New Brake Cup

**Signal-Stat Corporation:** Recently introduced Coni-Seal, a new wheel cylinder replacement cup



for modern brake systems. The new cup is said to grow in diameter, thus offsetting wheel cylinder wear. The company claims Coni-Seal provides a center cone that directs fluid to the cup's base and sides. This allegedly insures maximum tension of the cup lips against the cylinder wall. This seal is said to eliminate the need for expand-

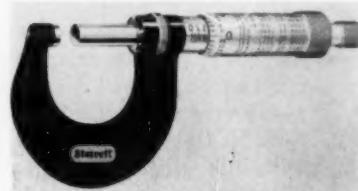
ers. Coni-Seal is reportedly immune to heat from brake systems.

### 134. Brake Compounds

**Thermoid Company:** New dry mix, brake lining compounds have been released claiming long-wearing qualities. Entitled MDB segments, they have a dual-friction lining designed for the company's BXM shoes. The higher-friction lining is used on primary and secondary shoes. Lower friction lining is used with secondary and forward shoes. The company claims the compound tends to equalize the work performed by several shoes. This results in an equal distribution of wear.

### 135. Micrometer Caliper

**The L. S. Starett Company:** A new micrometer caliper, No. 436,



is released for low-cost, precision operation. The company

reports the micrometer is made with a forged rib frame, which is tapered for inaccessible areas. It is said that a chrome finish applied to the thimble and sleeve will eliminate glare. This finish also resists rust and wear. The micrometer is available in sizes from 1 to 24-in. with an option of lock nut and ratchet stop, or a friction thimble.

### 136. Gas Cap Merchandiser

**Wayne Metalcraft Division, E. Edelmann & Co.:** A counter dispenser, containing eight individually boxed caps, is offered to build impulse sales for locking gasoline caps. Eight caps reportedly comprise the assortment of vented and unvented types. Models offered are said to fit filler necks in 1½ and 1¾-in. sizes.

### 137. Charger-Welder Unit

**Marquette Mfg. Company:** Just out is a charger-welder unit for light and medium welding as well as fast-charging of 6 and 12 volt batteries. The company claims a new transformer is used with open primary and secondary multiple coils. Amperage adjust-



ment is reputedly 3 to 7-in. less than conventional models. The

unit, Redi-Arc 67C, has dual-range amperage settings which are set in continuous scales from 20 to 180 amps. It is said the unit converts from welding to charging by a manual, reset circuit-breaker. A 4-plate, selenium rectifier reportedly provides direct charger current. Both rectifier and battery are protected from operator error by automatic, reset circuit-breakers. Another unit, 66C, is offered without the built-in charger.

### 138. Pushbutton Auto Wax

**S. C. Johnson & Son, Inc.:** A new auto wax that will allegedly per-



form like paste wax is available in a pushbutton container. Entitled Instant J-Wax, the cleaner is said to be combined with hard paste wax. The wax is discharged in a heavy, pink foam which contains a small dosage of perfume to overcome raw material odors. The company claims the wax cleanses enamel and lacquer finishes; also removes rust from chrome and combats tar and bugs.

### 139. Stable Fuel Flow

**Paser Mfg. Company:** A redesigned "Mileage Minder," MM-

200-MB, is advanced for smooth fuel flow of all car engines. The



company claims the minder is installed between the fuel pump and the carburetor. It allegedly provides "trouble trap," a permanent-type magnet that removes metallic impurities from the fuel stream. The minder uses a pulsation chamber which absorbs the fuel thrusts created by the fuel pump. This absorption reputedly insures a smooth fuel flow without reducing the pump's pressure. Another feature is a small new metal bowl. It is said to make the minder suitable for both marine and truck engines.

### 140. Mobile Extension Cord

**CMG Industries, Inc.:** Electriduct, an over-the-floor, rubber extension cord is available for electric appliances and machines. The rubber duct reputedly eliminates the stumbling attributed to loose wires. It is offered in four lengths and will carry 15 amperes at 125 volts. According to the company, the duct will noiselessly withstand both foot and caster traffic. It is available in two forms: The first is a heavy-duty extension cord with a wall plug attached

(Continued on page 68)

## New Products . . . . . Continued from page 67

to one end and a duplex outlet to the other. The second provides special outlets with individual ducts and fittings. It is also said to cover cables, wires and tubing.

### 141. Special Lubricants

**The Kendall Refining Company:** Two specialized lubricants have been announced for servicing late model automobiles. The first, Kenlube C-999, is described as a semi-fluid steering gear lubricant which has been approved for Saginaw steering assemblies. It also satisfies the Ford M-4738 specification. The second, Kenlube B-521, is said to be recommended for 1957-58 ball-joint suspension systems. The company claims it withstands shock, heat, water corrosion and oxidation. Besides silencing ball-joint noises, the lubricant is prescribed for chassis fittings, wheel bearings and universal joints.

### 142. Lubricating Unit

**Lincoln Engineering Company:** A new line of lubricating equipment has been distributed to dealers in a service-display unit.



Entitled "Golden Standard Lubreels," the unit consists of four

pieces of lubricating equipment which are attached to reels set in the base of the unit. According to the company, the reels are self-retracting and provide a speed and pressure control. They are allegedly air or spring powered. It is said the unit can be mounted on ceilings or walls and does not require a sub-base. The Lubreels reportedly have Lincoln's vertical-flo styling. Heavy chrome and gold tone lend a showcase affect.

### 143. New Containers

**E. I. du Pont de Nemours & Co.:** Four automotive specialty prod-



ucts will shortly appear in string-open containers. According to the producer, the new container facilitates clean, accurate pouring, forming a spout when squeezed. Said to be time saving, the new package is opened by a string pulled around the sealed end.

### 144. Plastic Rubber Display

**Woodhill Chemical Mfg. Co.:** Available in putty form, a black latex rubber is introduced that is said to chemically vulcanize without heat, flame or tools. Encased in a tube, it is

said the new product is effective for waterproofing, rustproofing and insulation. It reputedly can be molded to any shape and easily applied. It is claimed each tube is mounted on a three-color



show pac card, with an acetate blister for protection. Reportedly, the card describes the uses for the latex rubber. The product is introduced to dealers with 12 individually carded tubes, wire display rack and three-color counter display card shipped in one carton.

### 145. Outdoor Signs

**Kleen-Stik Products, Inc.:** A new vinyl plastic stock, backed with moistureless adhesive for permanent outdoor advertising displays, is currently being manufactured. Entitled Vinyl-stik, it is said the material offers a flexible printing base that is weatherproof and impenetrable to most oils, grease, acids, and salts. It is claimed heavy backing paper strips away by tearing the edge, and the sign can be pressed in place without water, glue, tacks, or tape. According to the manufacturer, the new stock can be pressed on any dry, hard surface and is not affected by heat, cold, water, or light. It is available in sheets 15 by 24-in. and 20 by 30-in., as well as in standard rolls of 15, 24, 27, and 30-in. widths.

(Continued on page 102)

# You Are Qualified to be a Member Of The Automotive Service League

This is a new and unusual organization open to all automotive service shops which have been qualified by Motor Age. Detach and return the postage free postcard below.

[The second postcard is for more new product information.]



## To MOTOR AGE

Please send me our membership plaque in the AUTOMOTIVE SERVICE LEAGUE. Our name should be inscribed as follows:

FOR  
LEAGUE  
MEMBER-  
SHIP

We operate a  
(check one)

- Car Dealership
- Repair Shop
- Service Station

There are \_\_\_\_\_ full time mechanics at our location.

Signed \_\_\_\_\_

Title \_\_\_\_\_

Frank P. Tighe, EDITOR MOTOR AGE  
P.O. Box 102, Village Station, N. Y. 14, N. Y.

2/58

Please send me further information on the New Products, the code numbers of which I have circled below.

131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200

Your Name..... Your Title.....

Your Company.....

Your Business: Wholesaler..... Repair Shop..... Car Dealer.....

Address ..... (Street & No.) ..... (City) ..... (Zone) ..... (State)

FOR  
NEW  
PRODUCTS

## New Literature

### 146. General Catalog

**The Wheelabrator Corporation:** A new 32 page illustrated catalog is offered describing the company's airless blast - cleaning machines. It also covers wet blast, air blast and dust control equipment. The company reports that cast-steel shot and grit abrasives, sandcutters and core rod straighteners are included. The catalog also contains literature references that describe the individual equipment.

### 147. Service Instructions

**Dana Corporation:** Announces a new manual of service instructions for all makes of automotive universal joints. The illustrated booklet describes servicing of Spicer, Mechanics, Detroit, Cleveland and Blood universal joints. One section reportedly reveals how to identify the manufacture and series of any universal joint. Also how to determine the proper part name for replacement orders.

### 148. Filter Wall Chart

**Purolator Products, Inc.:** A 1958 automotive filter wall

chart for dealers is advanced. The chart lists replacement fuel filters, also oil and air filters for cars and light trucks. According to the company, the chart also provides oil, air and fuel filter specifications for popular foreign cars. The reverse side furnishes cross references of the company's refill numbers and thirteen other filters. The chart reportedly covers the new cars using the new dry-type air filter.

### 149. Transmission Manual

**United Motors Service, Div. of General Motors:** A new service manual for hydra-matic transmissions has been introduced with a 250-page picture story. The company claims it will reveal the mystery of hydra-matic transmissions to both garage owners and mechanics. It is said to cover 1956 to current models. More than 600 step-by-step photographs and diagrams of repair service are reportedly included. The manual discusses control checks at important assembly points. Proper tools and parts are also covered. Another feature is a schedule of flat rate charges.

### 150. Safety Clothing

**Milburn Company:** A six-page booklet analyzing safety clothing is available. The booklet reportedly compares the chemical resistance and safety factors of nine synthetic fabrics and films. Resistance is discussed, at varying concentrations and temperatures, to organic and inorganic acids, alkalies, salts and solvents. The company claims Dynel, Orlon, Dacron, Acrilan and vinyl-coated fabrics are explained. Also vinyl and polyethylene films. Among the protective qualities covered are fire resistance and liquid repellence. Laundering facts are also offered.

(Continued on page 102)

### BUSINESS REPLY CARD

NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY

**MOTOR AGE**

**56th & Chestnut Streets**

**Philadelphia 39, Penna.**

Att: E. W. Hevner

FIRST CLASS  
PERMIT No. 18  
Philadelphia, Pa.



### BUSINESS REPLY CARD

NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY

**Chilton's MOTOR AGE**

**P. O. Box 102,**

**Village Station,**

**New York 14, N. Y.**



Readers Service Dept.

# 1957 New Passenger Car Registrations by Makes by States\*

STATE AND MONTH	Buick	Cad- illac	Chev- rolet	Chrys- ler	De Soto	Dodge	Edsel	Ford	Hud- son <sup>a</sup>	Lin- coln <sup>b</sup>	Mer- cury	Metro- politan	Olds- mobile	Pack- ard	Ply- mouth	Pon- tiac	Ram- bler	Stude- baker	All Others	Total	
Alabama	271	80	1199	90	40	161	48	949	4	24	126	2	197	2	301	174	46	23	158	3,873	
11 Mos.	5100	1039	20709	1188	765	2231	220	19490	127	206	3062	106	3938	27	5609	3345	609	414	1737	66,991	
Arizona	94	70	628	48	26	82	53	842	1	31	98	4	144	1	170	115	38	37	199	2,469	
Arkansas	1763	842	7810	670	327	961	181	8233	43	232	1514	93	1857	23	2827	1634	508	384	1513	31,445	
California	181	50	980	33	28	126	23	915	2	13	128	3	158	23	253	148	41	36	49	3,178	
11 Mos.	2398	680	11247	455	401	1727	85	11894	50	149	2159	40	2298	16	3570	2119	368	387	407	40,460	
Colorado	2353	1218	10722	1109	618	1880	841	10751	31	401	1342	158	2480	13	3763	1776	718	381	4217	44,583	
11 Mos.	26220	15860	113319	13129	874	22713	2441	133778	1016	4326	23144	251	27504	81	47245	24584	6406	4435	45453	522,547	
Connecticut	213	101	921	76	53	145	60	896	15	26	142	11	174	1	351	177	121	51	191	3,745	
11 Mos.	3022	1063	12341	1134	850	2296	297	12542	252	350	1529	180	2912	60	5154	2572	1164	572	1506	50,645	
Delaware	Nov.	359	184	1205	187	122	346	79	1475	16	80	202	13	368	8	672	356	223	95	535	8,523
11 Mos.	4734	1972	16740	226	1492	4372	387	18072	251	617	2943	253	4670	88	9181	4859	1955	1012	1513	81,848	
Florida	Nov.	80	26	280	35	20	50	10	308	12	41	4	58	134	77	12	21	36	1,214		
11 Mos.	1041	439	4380	426	270	744	36	4306	27	131	873	18	1032	13	2185	1237	121	186	358	17,804	
District of Columbia	Nov.	86	58	437	52	39	74	14	390	5	15	54	8	110	208	107	16	9	144	1,824	
11 Mos.	1185	702	5110	627	402	1150	54	4951	43	176	964	60	1494	25	2600	1488	242	132	1023	22,408	
Georgia	Nov.	699	384	3376	255	166	386	171	3844	11	109	347	44	567	5	1148	437	167	96	910	13,141
11 Mos.	11015	8783	42588	3433	2320	6271	602	42741	316	1533	7130	613	9418	112	15975	8883	2195	1172	10424	170,584	
Idaho	Nov.	500	139	1967	101	56	225	72	2145	4	30	219	15	389	4	527	356	70	58	204	7,082
11 Mos.	6430	1888	28068	1560	936	3278	253	31152	139	438	3918	163	5889	85	7859	6279	752	799	2427	103,347	
Illinois	Nov.	98	30	351	33	25	66	31	278	3	3	43	5	69	3	111	91	65	39	68	1,412
11 Mos.	1245	430	3612	386	324	864	85	3478	82	112	857	42	1032	21	1685	1115	575	312	566	17,215	
Indiana	Nov.	1430	555	6283	382	297	704	297	5248	31	193	631	25	1279	12	1661	1070	614	285	682	21,718
11 Mos.	26840	8868	88482	8788	8222	12546	1212	86501	1073	2577	18611	322	24674	84	35281	20388	6549	4286	6792	358,443	
Iowa	Nov.	1030	243	3147	290	230	471	253	3138	28	85	395	13	842	10	1064	668	281	231	12,787	
11 Mos.	13845	3857	39089	3810	3158	7162	817	42879	477	953	7638	170	11725	237	17222	9681	2344	3999	2226	170,988	
Iowa	Nov.	356	74	1545	78	80	161	96	1410	10	23	173	2	275	1	403	275	119	79	116	5,282
11 Mos.	5611	1346	21911	1459	1116	3193	350	2067	296	334	3755	34	4746	70	7424	4341	1169	950	891	76,023	
Kansas	Nov.	340	104	1624	87	78	182	72	1420	7	29	196	11	320	4	378	231	129	70	12	5,405
11 Mos.	4971	1429	20492	1325	1132	2907	311	18446	254	316	3518	107	4735	67	5485	4188	1142	847	1082	74,142	
Kentucky	Nov.	339	71	1396	60	127	370	14	206	10	254	3	378	210	80	30	83	4,620			
11 Mos.	4993	1002	18782	1822	774	2238	298	17977	96	208	2963	72	4380	47	6137	3589	406	475	614	85,704	
Louisiana	Nov.	409	152	220	120	94	256	84	2415	4	37	248	7	483	2	581	431	60	76	172	7,815
Maine	Nov.	111	32	406	33	76	72	20	421	1	9	60	4	65	2	135	83	89	40	1,748	
11 Mos.	1622	452	8189	388	402	996	59	6063	116	138	1079	71	1198	25	2576	1478	852	424	1168	25,294	
Maryland	Nov.	366	121	1607	165	99	332	88	1374	14	33	206	21	397	1	730	352	99	63	61	3,331
11 Mos.	4888	1649	23905	2244	1432	4944	299	21971	225	389	3546	163	5344	108	12825	5585	912	908	2371	83,989	
Massachusetts	Nov.	632	192	1933	253	224	396	70	2050	28	104	274	19	812	10	891	525	358	68	5,422	
11 Mos.	8746	3629	26771	3553	2828	5903	43	31799	448	927	5621	314	3104	107	14875	7334	4177	1029	6136	138,532	
Michigan	Nov.	1676	603	6582	486	534	1080	366	6624	25	354	911	46	1715	6	2346	1235	585	221	20,580	
Minnesota	Nov.	376	124	1972	101	112	265	83	1791	14	28	189	2	410	3	572	277	194	122	1,796	
11 Mos.	7750	1983	26838	2290	1843	4644	468	24412	420	853	5122	52	7815	119	10806	5472	2384	1881	1488	170,663	
Mississippi	Nov.	201	45	994	27	31	65	1028	2	8	104	4	93	173	176	20	40	39	1,658		
11 Mos.	298	676	13067	610	496	1171	84	1160	29	13	1887	29	2531	23	3747	2513	771	455	462	42,580	
Missouri	Nov.	598	186	2393	137	166	343	79	2450	12	31	327	11	499	2	368	520	158	132	9,724	
11 Mos.	7955	2582	37987	2165	2158	4977	349	34340	252	802	5269	140	792	122	1435	7238	1504	1484	1819	132,545	
Montana	Nov.	103	21	459	47	30	57	21	354	3	10	58	2	77	2	130	81	57	42	1,645	
11 Mos.	1448	524	524	509	266	1115	65	491	77	110	963	46	1312	28	1851	977	815	349	822	21,427	
Nebraska	Nov.	237	77	899	30	110	110	98	896	6	11	111	2	161	4	297	188	35	38	1,568	
11 Mos.	2991	780	11164	733	374	1256	168	1153	125	153	2068	11	2310	51	5351	1881	534	479	466	40,740	
Nevada	Nov.	522	125	1884	264	177	300	23	2109	8	16	78	2	56	92	11	61	61	744	8,234	
11 Mos.	844	14	231	18	19	57	6	212	2	7	25	3	58	42	23	33	33	996			
New Hampshire	Nov.	890	292	4105	293	288	765	53	3727	73	101	692	80	825	12	1676	963	545	520	1000	16,887
New Jersey	Nov.	1104	460	3611	567	498	742	180	3413	19	109	491	43	1041	2	1655	702	350	245	789	16,016
11 Mos.	12344	6188	42722	7222	6040	11685	778	44367	378	1556	8540	78	37265	253	25386	10243	2822	480	6261	22,571	
New Mexico	Nov.	120	45	548	32	39	90	34	565	1	21	76	3	106	145	126	37	36	91	2,117	
11 Mos.	1507	495	6738	536	394	902	126	6117	38	144	1150	65	1484	21	1919	1503	302	288	799	24,802	
New York	Nov.	4080	1362	17275	880	2061	168	17788	120	244	3019	80	4153	51	5667	3407	748	624	1186	63,073	
11 Mos.	251	1464	88	86	160	80	107	11	25	161	11	232	4	295	181	147	60	319	4,746		
11 Mos.	3422	1036	14719	1107	1045	233	13586	203	1377	2578	22	3039	67	4676	3007	1468	877	4298	56,496		
Pennsylvania	Nov.	1790	495	6044	803	671	1295	313	4882	51	155	698	43	1379	22	2832	1363	522	356	733	24,437
11 Mos.	24083	7789	77004	1055	8568	16458	1037	7071	1164	1777	15899	481	20660	483	45796	19296	5107	4480	8206	343,207	
Rhode Island	Nov.	78	54	292	44	35	62	25	408	6	16	33	1	106	1	134	73	78	16	106	1,561
11 Mos.	1168	510	4981	511	53	125	34	969	4	15	108	12	187	1	304	187	46	28	87	3,511	
South Carolina	Nov.	298	60	934	61	53	125	34	969	4	15	108	12	187	1	304	187	46	28	87	3,511
11 Mos.	3587	807	11469	842	579	1232	130	12810	46	122	1734	80	2356	20	4124	2317	293	360	802	43,538	
South Dakota																					

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oil ring made today  
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# 1958 Tune-up—Alignment Specifications

MAKE AND MODEL	No. of Cylinders Bore and Stroke (in.)	Maximum Brake H.P.	Spark Plug Make and Size (mm)	TUNE-UP DATA						FRONT END ALIGNMENT						
				VALVES			IGNITION			Breaker Point Gap (In.)	Cam Angle (Deg.)	Steering Axis Inclination (Deg.)	Caster (Deg.)	Camber (Deg.)	Toe-in (in.)	
				Seat Angle	Operating Tappet Clearance	Inlet (Deg.)	Exhaust (Deg.)	Inlet (in.)	Exhaust (in.)							
<b>AMERICAN MOTORS CORP.</b>																
Metropolitan	4-561, 562	4-27 $\frac{1}{2}$ x3 $\frac{1}{2}$	52	Ch-14	45	45	.015HC	.015HC	.015	30	.024	118	6 $\frac{1}{2}$	2P to 3P	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	0 to $\frac{1}{2}$
Rambler	6-5510	6-3 $\frac{1}{2}$ x4 $\frac{1}{4}$	127	CA-14	45	45	.012H	.016H	.016	32	.035	68	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	6-5520	6-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	215	CA-14	30	45	.012H	.014H	.016	30	.035	68	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	6-5580	6-4x3 $\frac{1}{2}$	270	CA-14	30	45	Hyd	Hyd	.016	30	.035	68	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
<b>CHRYSLER CORP.</b>																
Chrysler	8-LC1-L	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	290	AL-14	45	45	Hyd	Hyd	.017	30	.035	68	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-LC2-M	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	310	AL-14	45	45	Hyd	Hyd	.017	30	.035	68	6 $\frac{1}{2}$	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-LC3-H	8-4x3 $\frac{1}{2}$	345	AL-14	45	45	Hyd	Hyd	.017	38	.035	68	6 $\frac{1}{2}$	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-LC3-S	8-4x3 $\frac{1}{2}$	380	AL-14	45	45	.015H	.024H	.017	38	.035	68	6 $\frac{1}{2}$	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
De Soto	8-LS1-L	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	280	AL-14	45	45	Hyd	Hyd	.017	30	.035	68	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-LS2-M	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	295	AL-14	45	45	Hyd	Hyd	.017	30	.035	68	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-LS3-H	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	305	AL-14	45	45	Hyd	Hyd	.017	30	.035	68	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-LS3-S	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	345	AL-14	45	45	Hyd	Hyd	.017	38	.035	68	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
Dodge	8-LD1-L1, LD1-L2	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	138	AL-14	45	45	.010H	.010H	.020	39	.035	28	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-LD2-L1, LD2-L2	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	252	AL-14	45	45	Hyd	Hyd	.018	30	.035	68	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-LD2-M	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	265	AL-14	45	45	Hyd	Hyd	.019	30	.035	68	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-LD3-L, LD3-L	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	295	AL-14	45	45	Hyd	Hyd	.019	30	.035	68	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-LD2 & LD3, D-500 Package	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	305	AL-14	45	45	Hyd	Hyd	.019	30	.035	68	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
Imperial	8-LY1-L, LY1-M, LY1-H	8-4x3 $\frac{1}{2}$	345	AL-14	45	45	Hyd	Hyd	.017	38	.035	68	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
Plymouth	6-LP1-L, LP1-M, LP1-H	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	132	AL-14	45	45	.010H	.010H	.020	39	.035	28	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-LP2-L, LP2-M, LP2-H	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	225	AL-14	45	45	.012H	.018H	.017	30	.035	108	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-LP2-H Fury	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	290	AL-14	45	45	.012H	.018H	.017	38	.035	108	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	Golden Commando Package	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	305	AL-14	45	45	Hyd	Hyd	.017	38	.035	88	6 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
<b>FORD MOTOR CO.</b>																
Edsel	8-57A, B; 68A, B; 63A, B; 64A, 76B	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	303	Ch-18	30	45	Hyd	Hyd	.015	24	.034	78	7	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-57A, 57B, 63A, 63B, 76B	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	345	Ch-18	30	45	Hyd	Hyd	.015	27	.034	78	7	0 to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
Ford	6-All	6-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	145	Ch-18	45 $\frac{1}{2}$	45 $\frac{1}{2}$	.019H	.019H	.025	37	.034	48	7 $\frac{1}{2}$	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-Custom 300, Fairlane	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	205	Ch-18	45 $\frac{1}{2}$	45 $\frac{1}{2}$	.019H	.019H	.015	27	.034	38	7 $\frac{1}{2}$	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-Fairlane 500	8-4x3 $\frac{1}{2}$	265	Ch-18	60 $\frac{1}{2}$	45 $\frac{1}{2}$	.026H	.026H	.015	27	.034	38	7 $\frac{1}{2}$	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-Fairlane 500 Option	8-4x3 $\frac{1}{2}$	300	Ch-18	60 $\frac{1}{2}$	45 $\frac{1}{2}$	.026H	.026H	.015	27	.034	38	7 $\frac{1}{2}$	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-Thunderbird	8-4x3 $\frac{1}{2}$	300	Ch-18	60 $\frac{1}{2}$	45 $\frac{1}{2}$	.025H	.025H	.015	27	.034	48	7 $\frac{1}{2}$	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	1 $\frac{1}{2}$ P to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
Lincoln	8-All	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	375	Ch-18	30	45	Hyd	Hyd	.015	27	.032	68	7 $\frac{1}{2}$	0 to 1 $\frac{1}{2}$ N	0 to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
Mercury	8-Monterey	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	312	Ch-18	60 $\frac{1}{2}$	45 $\frac{1}{2}$	Hyd	Hyd	.015	27	.034	48	7	1 $\frac{1}{2}$ N to 2N	1 $\frac{1}{2}$ N to 2N	$\frac{1}{2}$ to $\frac{1}{2}$
	8-Montclair	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	330	Ch-18	60 $\frac{1}{2}$	45 $\frac{1}{2}$	Hyd	Hyd	.015	27	.034	48	7	1 $\frac{1}{2}$ N to 2N	1 $\frac{1}{2}$ N to 2N	$\frac{1}{2}$ to $\frac{1}{2}$
	8-Park Lane	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	360	Ch-18	60 $\frac{1}{2}$	45 $\frac{1}{2}$	Hyd	Hyd	.015	27	.034	78	7	1 $\frac{1}{2}$ N to 2N	1 $\frac{1}{2}$ N to 2N	$\frac{1}{2}$ to $\frac{1}{2}$
<b>GENERAL MOTORS CORP.</b>																
Buick	8-40	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	260	AC-14	45	45	Hyd	Hyd	.015	30	.033	58	7	1 $\frac{1}{2}$ N	1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-80, 80, 70, 700	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	300	AC-14	45	45	Hyd	Hyd	.015	30	.033	58	7	1 $\frac{1}{2}$ N	1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
Cadillac	8-60, 62, 75	8-4x3 $\frac{1}{2}$	313	AC-14	44	44	Hyd	Hyd	.016	30	.035	58	4	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ N	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	$\frac{1}{2}$ to $\frac{1}{2}$
Chevrolet	6-1100, 1500, 1700	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	145	AC-14	31	46	Hyd	Hyd	.018	30	.035	TC	7 $\frac{1}{2}$	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-1200, 1600, 1800	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	185	AC-14	45	45	Hyd	Hyd	.019	30	.035	48	7 $\frac{1}{2}$	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-1200, 1600, 1800	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	250	AC-14	45	45	Hyd	Hyd	.019	30	.035	48	7 $\frac{1}{2}$	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-867	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	280	AC-14	45	45	Hyd	Hyd	.018	29	.035	48	4	2 $\frac{1}{2}$ P	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$
Oldsmobile	8-88	8-4x3 $\frac{1}{2}$	265	AC-14	45	45	Hyd	Hyd	.016	30	.030	58	7	0 to 1N	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$
	8-88, 98	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	305	AC-14	45	45	Hyd	Hyd	.016	30	.030	58	7	0 to 1N	1 $\frac{1}{2}$ N to 1 $\frac{1}{2}$ P	0 to 1 $\frac{1}{2}$
Pontiac	8-58-25, 58-27, 58-28	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	240	AC-14	30	45	Hyd	Hyd	.018	30	.036	68	4 $\frac{1}{2}$	0 to 1N	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-58-25, 58-27, 58-28	8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	255	AC-14	30	45	Hyd	Hyd	.018	30	.036	68	4 $\frac{1}{2}$	0 to 1N	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$
<b>STUDEBAKER-PACKARD CORP.</b>																
Packard	8-58L	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	225	Ch-14	45	45	.024H	.024H	.016	31	.036	48	6	1N to 2 $\frac{1}{2}$ N	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-58L-K	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	275	Ch-14	45	45	.024H	.024H	.016	31	.036	48	6	1N to 2 $\frac{1}{2}$ N	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$
Studebaker	8-58G	8-3x3 $\frac{1}{2}$	101	Ch-14	45	45	.018C	.018C	.020	39	.031	28	6	1N to 2 $\frac{1}{2}$ N	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-58B	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	150	Ch-14	45	45	.024H	.024H	.016	31	.036	48	6	1N to 2 $\frac{1}{2}$ N	1N to 1P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-58H	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	225	Ch-14	45	45	.024H	.024H	.016	31	.036	48	6	1N to 2 $\frac{1}{2}$ N	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$
	8-58H-K7	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	275	Ch-14	45	45	.024H	.024H	.016	31	.036	48	6	1N to 2 $\frac{1}{2}$ N	0 to 1P	$\frac{1}{2}$ to $\frac{1}{2}$

#### ABBREVIATIONS

AC—A. C. Spark Plug Div.

AL—

...and McQUAY-NORRIS  
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BEARINGS  
in the world!



Approved  
Original Equipment  
for Cars, Trucks,  
Buses and Tractors



McQUAY-NORRIS MANUFACTURING CO., ST. LOUIS-TORONTO

## Service Man's IDEA BOOK



### *How to Use the Merchandising Calendar for March . . .*

Again this month, Service Man's Idea Book is running a merchandising calendar to help you increase parts and accessory sales and the amount of repair jobs. The basic premise is simple: Ask for the order!

Many a customer drives in as potential buyer but no one takes time to ask him if he would like the item fixed or replaced TODAY.

To help you and your employees to do a better merchandising job, this calendar was worked up. As explained last month, the calendar is divided into four campaigns—one for each full week during the month.

Of course the calendar is only an aid to you. A reminder. You have to put it to use. You have to do the follow-up.

#### **Design for Station Wagon Living**

In this day of convenience, even camping can be no longer a matter of roughing it. Or



Checking car or camping trouble light are (from left) Motor Age technical editor John K. Montgomery, managing editor William H. Wolfe and pretty model Roberta Jones.



Ford Motor Co., Gimbel's of Philadelphia, and many makers of camping equipment teamed up on this display to the public of what a well-equipped camper may have.

so it seemed to visitors to Design for Station Wagon Living exhibits.

These exhibits have been located at various points around the country these past months. Ford Motor Co. has supplied the station wagons as the vehicle theme. Manufacturers of camping equipment have cooperated by putting more than 200 different pieces of specialized equipment for use by station wagon owners on display.

One such display occurred in Philadelphia. There the Gimbel's store in the northwest area of the city set aside the front part of its building to the display.

Visitors to the exhibit saw "pop" tents which required no poles, stakes or guy wires. Car top sleepers were on display along with portable furniture. Also a red plastic kitchen sink. This was part of a complete kitchen unit that slides out over the tailgate of the station wagon. In short, items for anything short of a safari were on display.

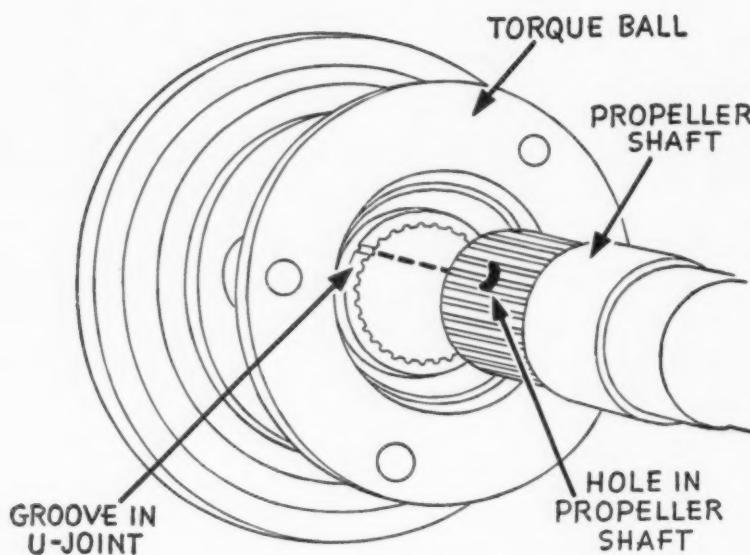
CUT ALONG DOTTED LINE AND POST IN A PROMINENT LOCATION

**March 1958**

**MOTOR AGE'S 1958 Merchandising Calendar**

SUN.	MON.	TUE.	WED.	THURS.	FRI.	SAT.
		<b>Quick</b> 	<b>For Quick Profits</b>			<b>1</b>
	<b>3</b>	<b>Brake Service Week</b>	<b>"Give Your Car a Brake"</b>			<b>8</b>
	<b>4</b>			<b>6</b>	<b>Check brake linings, drums &amp; wheel cylinders. Check brake adjustment. Check hand brake. Check master cylinder fluid. Check leaky cylinders.</b>	<b>15</b>
	<b>10</b>	<b>Convertible Service Week</b>	<b>"Give that Convertible a 'FACE LIFT'"</b>	<b>13</b>	<b>Check top material for repair or replacement. Check operating mechanism for raising, lowering. Check interior upholstery for wear &amp; cleaning. Check body for dents &amp; need for polish job. Check glass &amp; window lifts.</b>	<b>22</b>
	<b>17</b>	<b>Springtime Tune-Up Week</b>	<b>"Profit from Spring TUNE-UPS"</b>	<b>20</b>	<b>Check compression, spark plugs &amp; points. Check battery, cables &amp; voltage regulator. Check oil, air &amp; gas filters. Check radiator, hoses &amp; fan belt. Check generator, starter &amp; wiring.</b>	<b>29</b>
	<b>24</b>	<b>Alignment Week</b>	<b>"Steer a Straight Course TOWARD PROFITS"</b>	<b>26</b>		<b>31</b>
	<b>30</b>					

## TROUBLE SHOOTING



### Vibration Occurs After Replacing Transmission

WE have had several letters from mechanics telling us that after installing new seals in the torque ball or separating the torque tube from the universal joint for any reason a severe vibration developed afterward. Upon investigating the cause we found out that the propeller shaft and joint are marked and if not lined up a vibration will be evident.

When installing the driveshaft to the universal there are two marks that must be lined up properly. Do this by placing transmission in neutral, rotate universal joint until either groove in rear edge is straight down. Then lock in position by

shifting (Dyna-flow into park or synchromesh in any gear). Install two torque tube guide pins. Move torque ball to align with torque tube flange and move axle assembly into place with hole in propeller shaft splines straight down. Rotate a rear wheel if necessary to keep hole in propeller shaft lined up with the groove in the universal joint.

### Volkswagen Needs Transmission Overhaul

*We are servicing a few Volkswagen's for our customers and one of them needs a transmission overhaul. Not being familiar with these cars how should I go about doing the job?*

Keystone Auto Repair Co.  
Phila., Pa.

THE first step in removing the transmission would be to disconnect battery ground cable. Raise car and place supports under it. Remove the engine. Remove the rear wheels. Disconnect brake line at the rear. Remove brake shoe return springs, brake shoes, brake levers, and brake cable brackets. Withdraw brake cables from backing plates. Disconnect the clutch cable from the clutch operating shaft lever and withdraw it from guide plate. Disconnect cables from terminals at starter motor. Remove frame end cover plate under rear seat. Remove the rear screw of the shifting rod. Remove the two bolts at the transmission carrier. Withdraw the axle assembly from the rear of the car.

To install transmission reverse the above procedure. Time can be saved by using three men when replacing the rear axle between the fork at the frame (one on each end and one in the center). Tighten nuts at transmission front rubber cushion and then tighten nuts of the screws that attach the transmission carrier to the rubber cushions. This order of tightening is most important and should be strictly followed to avoid distortion and premature wear of the rubber cushions.

**1953 Lincoln Has A Drive Line Thump**  
*I have a 1953 Lincoln which*

# PROBLEMS

by Jack Montgomery  
Technical Editor



*has a thumping sound. It sounds like the drive shaft is slipping forward when the car dips or when you stop. I saw sometime ago in Motor Age where someone had a similar problem as mine, but cannot find his remedy. It seems to me that he installed a spring in the universal joint in some manner. Please advise a remedy for this problem.*

W. W. Sconce  
Buck's Garage  
Santa Rosa, Calif.

USUALLY, this thump is caused by the drive shaft sliding forward. Some mechanics have repaired this by slipping a small spring inside the front universal joint, others use white lead on the splines. A permanent cure can be made by installing a set of rebound plates on the rear springs.

**1953 Mercury Is  
Very Hard To Start**  
*I have a '53 Mercury with*

*Merc-O-Matic that is very hard to start. The engine has been completely overhauled. I installed new timing gear, condenser and points, plugs, new ignition wires, new rotor and cap, new carburetor, fuel pump. The fuel pump is getting full stroke. The starter spins it over very well and the spark seems exceptionally good. I have timed it at different advances and retards. The vacuum advance works properly. The compression, however, isn't up to par. All the cylinders have from 80 to 90 lbs. Even with this compression it still should start better than it does. It usually takes about one to two minutes to start. The choke works O.K. too.*

Dale B. McDowell  
Sioux Falls, S.D.

**YOU** have done a thorough job in trying to locate the trouble. You say the compression is a little low. That sometimes makes them hard to start. About the only thing you have not checked is the neutral switch. I would suggest by-passing this switch to see what happens. Also make sure the ignition switch and all the connections are clean and tight.

**Disagree On How  
To Bleed Brakes**  
*My auto mechanic teacher and I have a disagreement on how to bleed brakes properly on a '47 Dodge. He says that when you*

*are bleeding the front wheel cylinders, you should start with the bottom cylinder. I disagree with him and say that you should start with the top cylinder. What do you say?*

Bruce Corman  
Pound Ridge, N.Y.

**A**CTUALLY a lot depends on the method used for bleeding. If a pressure tank is used it does not matter which wheel or cylinder you start with as long as all the air bubbles disappear. However, if the brake cylinder is pumped, to bleed them you should start at the farthest wheel and work around the car. According to the Chrysler shop manual your teacher is right. It says "... at the front wheels, bleed the lower cylinder first so as to force all the air out of the connecting line." I will go along with that also. I always bleed the lowest one first. This way, air pockets have less tendency to form.



**\$25**

FOR THE KINK  
OF THE MONTH

TIME AND WORK SAVING IDEAS ON CARS AND

# SHOP KINKS

TRUCKS CAN PAY OFF. SEND YOURS IN NOW!

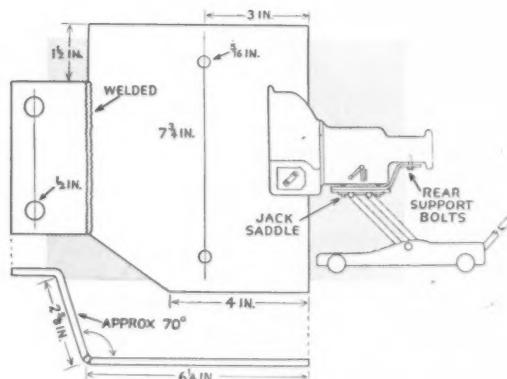
**\$7.50**

FOR EACH  
KINK PAID

**\$25**

## KINK OF THE MONTH

### Jack Adapter For Removing Powerglide Transmissions



I have made a very inexpensive jack adapter for removing and installing powerglide transmissions. It is made out of a flat piece of steel and bent as shown in drawing. We bolt it onto the jack and then to the transmission. In use it saves us all the brute strength required when lifting the transmission in and out. *Van Lane, Schramm Chevrolet, Wentzville, Mo.*

### Using Outside Switch To Adjust Washer Nozzles

On the new type windshield washer equipped with an electric switch, a lot of time can be saved by using an outside connection in place of the push button on the dash. We use a push-button switch with wires attached such as is used to operate the starter from outside the car. To use it, disconnect the ground wire from the washer and connect one wire from the push button switch to it, connecting the other wire to a convenient ground. With such a hook up it is possible to stand beside one of the nozzles, push the button and as the nozzle squirts, make adjustments. *Lynn F. Snoddy, 1622 Vivian St., Shreveport, La.*

### How To Clean Out Dirt In Tumbler Locks

At times ignition locks become inoperative due to foreign material in lock tumblers. Sometimes blowing compressed air in lock and working key will allow key to go deep enough so lock cylinder can be turned to unlock position. Plunger can then be shoved down and tumblers removed. By tapping tumblers on piece of wood, foreign materials will fall out. Then the tumblers can be put back in lock and can be as good as new. In stubborn cases, where you don't have compressed air, the entire lock can be removed from the dash of car

*(Continued on page 82)*

## CURRENT PASSENGER CAR PRICE, WEIGHT AND BODY TABLE

**Following are prices at factory for cars with standard equipment as of January 24, 1958  
State or local taxes, transportation and finance charges and optional equipment are extra.**

BODY MAKE AND MODEL	List Price at Factory without Federal Taxes											
	Federal Taxes and Handling Charges	Suggested Price at Factory including Federal Taxes	Shipping Weight	Federal Taxes and Handling Charges	Suggested Price at Factory including Federal Taxes	Shipping Weight	Federal Taxes and Handling Charges	Suggested Price at Factory including Federal Taxes	Shipping Weight	Federal Taxes and Handling Charges	Suggested Price at Factory including Federal Taxes	Shipping Weight
<b>AMERICAN MOTORS CORP.</b>				<b>CHRYSLER CORP. cont'd</b>			<b>FORD MOTOR CO. cont'd</b>			<b>GENERAL MOTORS. cont'd</b>		
<b>RAMBLER</b>				<b>DODGE, Cont'd</b>			<b>FORD, Cont'd</b>			<b>CADILLAC, Cont'd</b>		
De Luxe 6	1875	172	2947	Sta. Wagons	2715	215	2930	3875	186	2479	3620	
Sedan, 4d.	1875	172	2947	Suburban, 2d.	2715	220	2985	3930	2343	190	2533	3677
Super 6	2028	184	2212	Sierra, 2s	2707	230	3137	3990	2392	193	2585	3625
Sedan, 4d.	2028	184	2212	Sierra, 3s	2940	232	3172	3972	2442	197	2639	3750
H. T. Sedan, 4d.	2080	189	2267	Cus. Sierra, 2s	3072	242	3314	4035	2542	204	2746	3787
Sta. Wagon, 4d.	2302	204	2504	Cus. Sierra, 3s					2663	213	2876	
Custom 6												
Sedan, 4d.	2135	192	2327	2968								
Sta. Wagon, 4d.	2409	212	2621	3078	<b>IMPERIAL</b>							
Rebel, Sup. V8					Imperial							
Sedan, 4d.	2149	193	2342	3300	Southamp., 2d.	4417	347	4764	4640			
Sta. Wagon, 4d.	2423	213	2336	3410	Southamp., 4d.	4516	354	4870	4795			
Rebel, Cus. V8					Crown	4516	354	4870	4990			
Sedan, 4d.	2256	201	2457	3313								
H. T. Sedan, 4d.	2326	206	2532	3324	<b>LINCOLN</b>							
Sta. Wagon, 4d.	2530	221	2751	3416	Southamp., 2d.	4928	385	5313	4730	4415	4735	
Amb. Sup. V8					Southamp., 4d.	5155	402	5587	4915	4553		
Sedan, 4d.	2369	218	2587	3456	Sedan, 4d.	5156	402	5587	4755	4553	4810	
Sta. Wagon, 4d.	2643	238	2681	3544	Conv. Coupé.	5273	411	5684	4820	4894		
Amb. Cus. V8					Le Baron	5468	426	5894	4780	4820		
Sedan, 4d.	2504	228	2732	3462	Sedan, 4d.	5468	426	5894	4940	4880		
H. T. Sedan, 4d.	2588	234	2822	3475	Limousine	14019	981	15000	5960	5124		
Sta. Wagon, 4d.	2778	248	3026	3568					5214			
H. T. St. Wag., 4d.	2862	254	3116	3558					5292			
									5355			
<b>CHRYSLER CORP.</b>				<b>PLYMOUTH*</b>			<b>MERCURY</b>			<b>OLDSMOBILE</b>		
<b>CHRYSLER</b>				Plaza V8	1943	158	2101	3220		Series 88		
Wimpy				Bus. Coupé.	2026	164	2190	3315		Sedan, 2d	2314	
Sedan, 4d.	2849	225	3074	3895	Club Sedan	2074	168	2242	3415	Sedan, 4d	2574	
Hardtop, 2d.	2928	231	3159	3860	Club Sedan	2153	174	2327	3360	Holiday Coupé	2627	
Hardtop, 4d.	2888	236	3224	3915	Sedan, 4d.	2200	178	2378	3400	Holiday Sedan	2699	
Twn. & Ctry., 2s	3302	289	3561	4155	Sport Coupé	2222	179	2401	3400	Conv. Coupé	2931	
Twn. & Ctry., 3s	3476	272	3748	3478	Sport Sedan	2286	184	2472	3475	Fleet Sedan	2990	
Saratoga				Belvedere V8	2278	183	2461	3370	Montclair	2991		
Sedan, 4d.	3485	273	3758	4120	Club Sedan	2325	187	2512	3430	Sedan, 4d.	3083	
Hardtop, 2d.	3541	277	3818	4045	Conv. Coupé	2341	188	2529	3430	Holiday Coupé	3087	
Hardtop, 4d.	3613	282	3895	4145	Sport Sedan	2407	193	2600	3520	Holiday Sedan	3092	
New Yorker				Conv. Coupé	2525	202	2727	3545	Conv. Coupé	3096		
Sedan, 4d.	3823	307	4230	4195	Suburban V8	2218	186	2504	3645	Super 88	3214	
Hardtop, 2d.	3871	311	4262	4205	DeLuxe, 2d.	2318	196	2526	3646	Sedan, 4d	3967	
Hardton, 4d.	4024	315	4339	4240	DeLuxe, 4d.	2368	196	2546	3646	Holiday Coupé	3972	
Conv. Coupé	4356	340	4696	4350	Custom, 2d.	2431	195	2626	3690	Holiday Sedan	4005	
Twn. & Ctry., 2s	4456	347	4903	4045	Custom, 4d. 6p.	2481	198	2680	3752	Conv. Coupé	4008	
Twn. & Ctry., 3s	4656	362	5018	4445	Custom, 4d. 9p.	2611	209	2820	3840	Fleet Sedan	4249	
<b>EDSO</b>				Sport, 4d. 6p.	2623	210	2833	3845	Montclair	4277		
Hardtop, 2d.	4740	368	5108	4305	Sport, 4d. 9p.	2753	220	2973	3830	Sedan, 4d.	4281	
Conv. Coupé	5140	396	5358	4775	Fury V8	2808	224	3032	3510	Holiday Coupé	4286	
				Sport Coupé					4290			
<b>FORD MOTOR CO.</b>							<b>BUICK</b>			<b>POINTIAC</b>		
<b>EDSEL</b>							Special 40			Chieftain		
							Sedan, 2d	2388		Sedan, 2d	2335	
							Sedan, 4d	2448		Sedan, 4d	2396	
							Hardtop, 2d	2489		Catal. Coupé	2460	
							Hardtop, 4d	2560		Catal. Sed. 4d	2539	
							Conv. Coupé	2766		Safari, 4d. 2s.	2575	
							Conv. Coupé	3111		Safari, 4d. 3s.	3473	
							Conv. Coupé	3210		Conv. Coupé	4336	
							Tow. C. Coupé	3244		Holiday Coupé	3955	
							Tow. C. Coupé	3284		Holiday Sedan	3958	
							Hardtop, 2d	3555		Conv. Coupé	4032	
							Hardtop, 4d	3626		Conv. Coupé	4272	
							Conv. Coupé	3740		Conv. Coupé	4338	
							Conv. Coupé	3788		Conv. Coupé	4349	
							Sta. Wagons	3867		Conv. Coupé	4358	
							Comtr., 2d. 6p.	3752		Conv. Coupé	4368	
							Comtr., 4d. 6p.	2778		Conv. Coupé	4378	
							Comtr., 4d. 9p.	2843		Conv. Coupé	4388	
							Comtr., 4d. 9p.	2932		Conv. Coupé	4398	
							Conv. Coupé	3056		Conv. Coupé	4399	
							Conv. Coupé	3119		Conv. Coupé	4409	
							Conv. Coupé	3199		Conv. Coupé	4419	
							Conv. Coupé	3243		Conv. Coupé	4429	
							Conv. Coupé	3284		Conv. Coupé	4439	
							Conv. Coupé	3346		Conv. Coupé	4449	
							Conv. Coupé	3487		Conv. Coupé	4459	
							Conv. Coupé	3488		Conv. Coupé	4469	
							Conv. Coupé	3555		Conv. Coupé	4479	
							Conv. Coupé	3626		Conv. Coupé	4489	
							Conv. Coupé	3740		Conv. Coupé	4499	
							Conv. Coupé	3788		Conv. Coupé	4509	
							Conv. Coupé	3867		Conv. Coupé	4519	
							Conv. Coupé	3908		Conv. Coupé	4529	
							Conv. Coupé	3955		Conv. Coupé	4539	
							Conv. Coupé	4003		Conv. Coupé	4549	
							Conv. Coupé	4053		Conv. Coupé	4559	
							Conv. Coupé	4103		Conv. Coupé	4569	
							Conv. Coupé	4153		Conv. Coupé	4579	
							Conv. Coupé	4203		Conv. Coupé	4589	
							Conv. Coupé	4253		Conv. Coupé	4599	
							Conv. Coupé	4303		Conv. Coupé	4609	
							Conv. Coupé	4353		Conv. Coupé	4619	
							Conv. Coupé	4403		Conv. Coupé	4629	
							Conv. Coupé	4453		Conv. Coupé	4639	
							Conv. Coupé	4503		Conv. Coupé	4649	
							Conv. Coupé	4553		Conv. Coupé	4659	
							Conv. Coupé	4603		Conv. Coupé	4669	
							Conv. Coupé	4653		Conv. Coupé	4679	
							Conv. Coupé	4703		Conv. Coupé	4689	
							Conv. Coupé	4753		Conv. Coupé	4699	
							Conv. Coupé	4803		Conv. Coupé	4709	
							Conv. Coupé	4853		Conv. Coupé	4719	
							Conv. Coupé	4903		Conv. Coupé	4729	
							Conv. Coupé	4953		Conv. Coupé	4739	
							Conv. Coupé	5003		Conv. Coupé	4749	
							Conv. Coupé	5053		Conv. Coupé	4759	
							Conv. Coupé	5103		Conv. Coupé	4769	
							Conv. Coupé	5153		Conv. Coupé	4779	
							Conv. Coupé	5203		Conv. Coupé	4789	
							Conv. Coupé	5253		Conv. Coupé	4799	
							Conv. Coupé	5303		Conv. Coupé	4809	
							Conv. Coupé	5353		Conv. Coupé	4819	
							Conv. Coupé	5403		Conv. Coupé	4829	
							Conv. Coupé	5453		Conv. Coupé	4839	
							Conv. Coupé	5503		Conv. Coupé	4849	
							Conv. Coupé	5553		Conv. Coupé	4859	
							Conv. Coupé	5603		Conv. Coupé	4869	
							Conv. Coupé	5653		Conv. Coupé	4879	
							Conv. Coupé	5703		Conv. Coupé	4889	
							Conv. Coupé	5753		Conv. Coupé	4899	
							Conv. Coupé	5803		Conv. Coupé	4909	
							Conv. Coupé	5853		Conv. Coupé	4919	
							Conv. Coupé	5903		Conv. Coupé	4929	
							Conv. Coupé	5953		Conv. Coupé	4939	
							Conv. Coupé	6003		Conv. Coupé	4949	
							Conv. Coupé	6053		Conv. Coupé	4959	
							Conv. Coupé	6103		Conv. Coupé	4969	
							Conv. Coupé	6153		Conv. Coupé	4979	
							Conv. Coupé	6203		Conv. Coupé	4989	
							Conv. Coupé	6253		Conv. Coup		

- Prices of 6 cyl. models are \$137 less than 8 cyl. models for the Custom; \$124 for the Fairlanes and \$107 for the Station Wagons.

\* Prices of 6 cyl. models are \$100 less than 8 cyl. models.

# Shop Kinks . . .

Continued from page 80

and held down towards the floorboard and tapped with piece of wood on lock cylinder and foreign material will fall out. In most cases this saves replacing tumblers and locks. *Harland C. Waggoner, National Highway Garage, Rt. 2, Tracy Rd., Lemoyne, Ohio.*

## Easy Way To Check Oil Pump Pressure

I have found a way to check oil pump pressure on Chrysler product M-6 transmissions 1949 through 1953. Obtain an old solenoid assembly and cut off top and remove the insides. Install a fitting in hole to hook up an oil pressure gauge. Make a brass bushing  $\frac{3}{4} \times 1\frac{1}{16}$  inches and drill hole through center  $\frac{1}{16}$  inches. To use on car first remove transmission solenoid assembly, control valve washer, control valve washer spring. Now install bushing in hole and screw reworked solenoid with gauge down over bushing. Run car on road to check the pressure. *Mel Cialone, Mel's Auto Repair Shop, 417 Broad St., Summit, N. J.*

## Tool For Removing Piston From Clutch Assembly

I have made a special tool for removing the piston from a clutch assembly of an automatic

for removing the snap ring. This has been used in a vise or a press on several makes of clutches. *George H. Clark, E. 2714 6th Ave., Spokane 31, Wash.*

## Tool For Removing Oil Filter Gaskets

This tool quickly and cleanly removes oil filter gaskets from 1956 and '57 Chevrolet V-8's without removing filter inner assembly. Use a thin shank screwdriver and grind to fit inside gasket well. Then bend the end and sharpen. A little push cuts the old gasket. Rotate the screwdriver to pull it out cleanly

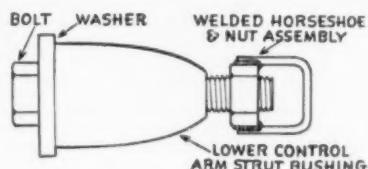


and quickly. *Edward Wanciak, 1/2 Bil-Mar Service Station, 110 Munson St., New Haven, Conn.*

## Handy Tool Replaces Torsion Bar Bushings

I made a tool to replace the lower control arm strut bushing on 1958 Chrysler line torsion bar suspension. It is often difficult to obtain clearance to drive these neoprene bushings in place

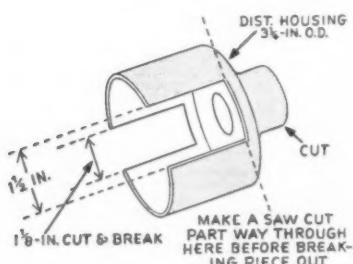
due to overhanging body and grille panels. I solved this by fabricating a fixture so the bush-



ing can be pulled into place. This tool is made by using a  $\frac{1}{2}$  inch threaded bolt three inches long, placing over this a large washer, and by welding a  $\frac{1}{8}$  inch wire horseshoe on an appropriate size nut. The bolt and washer assembly are slipped through the bushing and pushed in place by hand, after which the nut & horseshoe assembly are threaded on the bolt. Then by prying in the horseshoe with a large screwdriver or other bar, the bushing assembly can be pulled in place from the back of the front cross member. *Charles H. Keehn, 1311 Birch St., Reading, Pa.*

## Tool For Removing Rear Starter Bushing

We have devised a driver to remove and replace the rear starter bushing located in the fly wheel housing on Willys and Willy's jeeps. Secure a new or used Chevrolet gear shift shaft. Cut off lever from shaft, leaving  $\frac{1}{4}$  inch shoulder. This makes an ideal driver and replacer. *C. J. Connell, Wilkerson Garage, Greewood, La.*



transmission. This tool can be made out of a discarded distributor housing. The illustration shows how to make the openings

If you have an original idea for a special tool, a short cut on any job or any trick of value to others, write it down and if necessary make a rough sketch. Just make it clear. Send it to Motor Age. If your Kink is used it may bring you \$7.50 or \$25. All entries become the property of the Chilton Company. Because of the quantity of entries sent in, none can be returned.

... to increase  
your TBA profits

... to insure customer  
satisfaction

# CHECK THE BELTS

it pays you in two ways to check the belts  
every time a hood is raised . . .

1. V-belt profits are good—and with the many added applications in modern cars, sales have increased considerably.

2. Another reason for making belt checking a *standard practice* is that it helps insure the continued patronage of your good customers. *Don't let them take chances with belts that should be replaced.*

Replacements with Gates V-Belts  
are fast and easy

There is a Gates V-Belt for every make and model of car. *Precisely engineered*, it fits correctly. And no time is needed in making the sale—all car owners recognize and trust the name of the *World's Largest Maker of V-Belts*.

Phone your nearby Gates jobber now for the belts you need and a handy display rack.



**The Gates Rubber Company, Denver, Colorado**

*World's Largest Maker of V-Belts*



The underside of  
the belt—not the  
top—tells the true  
condition of the  
belts. So always  
turn belts over.

Belts that have any of  
the following signs of  
wear should be re-  
placed.



**CRACKED:** Cracks on  
underside are dangerous.  
Belt may snap  
suddenly.



**GREASY:** Note the  
grease-softened under-  
core and slick side-  
walls. Aside from  
danger of slippage,  
such belts go to pieces  
rapidly.



**GLAZED:** Slick, glazed  
sidewalls may cause  
belt to slip badly.  
**RESULT:** low battery and  
overheating.



**PEELING:** Sections of  
undercore (underside)  
often peel and break  
off. Belt runs rough  
—may fail.



**SPLIT:** Signs of "fray-  
ing" may indicate  
split in sidewall. Split  
belts don't ride pul-  
leys properly — may  
cause sudden trouble.



# Gates Vulco V-Belts

# SERVICE SUGGESTIONS

## Removing Glycol Contamination From The Engine

Should it be determined that glycol contamination is present throughout the engine oiling system, it may be removed as follows. Caution: The cause for the coolant leak into the oiling system should be found and corrected before attempting to clean out the glycol contamination or else the condition will repeat itself.

1. The engine oil should be completely drained, the oil filter removed, and the crankcase filled with a mixture of approximately 3 qts. of SAE 10 W motor oil and 2 qts. of Butyl Cellosolve. The engine should be run at idling speeds for thirty minutes, paying particular attention to the oil pressure, and then immediately drained.

2. A flushing solution of approximately 3 qts. of SAE 10 W oil and 2 qts. of kerosene should then be circulated in the engine at idling speed for approximately five minutes and then completely drained.

3. The engine should then be serviced with a new filter element and fresh oil of the grade and classification required.

## Generators Use New Type 3-Unit Regulator

Some truck and passenger car applications for 1957 and 1958 will have extra output D. C. generators which will use a new type 3 unit regulator having a double contact voltage regulator as original equipment. These higher output generators require higher field currents and this new regulator was designed for this purpose.

During low speed, and heavy generator loads the voltage regulator operates on parallel contacts. Operation on the parallel contact is a vibrating action much like that of the series contact except that the average field current is much less.

## Stopping Creaking Noise In Front Suspension Ball Joints

Some 1955 and later Ford and Mercury front suspension ball joints get noisy by making a creaking noise or sound as if they are dry and need greasing even though they may have been just lubricated. Some are quiet during wet weather. You can stop them from creaking by greasing with a graphite pressure grease gun. Use enough of the graphite grease to force as much of the old grease out of the ball joints as possible, then drive the car a few miles over a rough road. This is much quicker and cheaper than replacing the U joints.

## Tips On Correcting Brake Pull Condition

When attempting to correct a brake pull condition, it is vitally important that attention be given to all details. Minor brake adjustments should include blowing dust out of the brakes. On the front insert air hose nozzle in the adjusting hole and rotate the drum in a forward direction while the air blast is taking place.

Incorrect contact of linings to drums may cause brake pull on new cars. If so, use emery cloth in a circumferential direction on the drum surface to restore a

normal finish and aid initial break-in of the linings. Another contributing factor is a flaky scale on the lining caused by severe use, or grease and paint contamination.

## Advice On Towing Cars With Air Suspension

The American Automobile Assn. has released a bulletin on towing cars which have air suspension systems. It gives the following advice:

1. If the suspension system is leaking or inoperative, there will be very little road clearance. To tow, jack up entire end of car and insert two wooden blocks (often supplied with car) between axle housing and frame. Special space is provided on some cars. For rear tows, insert blocks between "A" frame and car frame. Tow carefully, particularly over rough roads.

2. If suspension has retained its air, but car requires towing, first check to see if reservoir has shut-off valve. Turn to "off" position and tow normally. If car is not equipped with shut-off valve, use your judgement on road clearance. (You may find that removing front wheels and lowering front end will increase ground clearance). If in doubt bleed system and use blocks. Be extra cautious on rough roads, check frequently for clearance.

3. Never jack up one wheel. Always raise that end completely off ground with jack or floor support under frame (or bumper, if approved). Don't forget to check for shut-off valve first, however. Avoid jacking under axle or "A" frame. These pre-

*(Continued on page 86)*



Thousands of Black & Decker  
Impact Wrenches sold . . . . . yet users didn't  
spend one dime for repairs!



**Swifty Service says:**

"Analysis of my Service Branch records on our rugged No. 100 Heavy-Duty Impact Wrench reveals purchasers haven't spent a dime for repairs. In fact, repairs under my Free Service Certificate have cost Black & Decker peanuts!" What does this mean to you? A rugged,

tough tool that's really *power*-built to stand the gaff! A tool you can depend on *all the time*; that needs no pampering.

Try it in your own shop! Mail coupon for a free demonstration or further information. Once you see it you'll want it . . . and time payment plans make it easy to own! THE BLACK & DECKER MFG. CO., Dept. 5102, Towson 4, Md. (In Canada: P.O. Box 278, Brockville, Ontario.)

**Check these features!**

- Full power in either direction—a flick of the wrist reverses it!
- Hits peak torque in just six seconds!
- Handle position eliminates nose or tail heaviness! No starting twist.
- Cannot stall or overload!

See it . . . Try it . . . You'll own it!



Leading Distributors Everywhere Sell



**Black & Decker®**

Quality Electric Tools...Power-built for top performance

→ MAIL TODAY FOR FREE DEMONSTRATION ←

THE BLACK & DECKER MFG. CO., Dept. 5102, Towson 4, Md.  
 Please arrange a free demonstration of your No. 100 Impact Wrench.  
 Please send additional literature.

Name \_\_\_\_\_ Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

**Own your own for  
as little as \$10.00 a month!**

## Service Suggestions . . . Continued from page 84

cautions are necessary due to leveler devices which may go into operation and cause car to slip from jack. Make certain that you are familiar with the individual makes' leveling mechanism before you crawl under a car.

4. Some cars feature a "rapid leveler" which operates when doors are opened, while others have a control lever on the dashboard. After the car has been left unused for a few days, there's a possibility that it will settle lower to the ground but return to operating height after motor is started. For safety, don't leave objects under car which may cause damage to underside when settling begins.

### New Specification For End Play Adjustment Clearance

A new specification for the adjustment of the rear axle drive shaft end play is now being used on all current model cars. The new end play adjustment clearance, which previously was .003 inch to .008 inch, is now .013 inch to .018 inch.

This new specification should be adhered to when servicing all "K" series vehicles, and also should be used on previous model Dodge cars. The increased end play provides greater allowance for thermal expansion of the axle shafts with respect to the axle housing. This is due to the fact that the axle shafts expand a slightly greater amount and at a faster rate than does the axle housing.

### Carburetor Adjustment Prevents Rough Idle

Several cases of rough hot idle on the Rochester 4 GC carburetor have been traced to a sticking action of the secondary throttle valve. To eliminate this condition a carburetor adjustment has been released which

will ensure a positive closing of the secondary throttle valve on idle. This adjustment establishes tension of the secondary lock spring against the secondary throttle operating lever, holding the secondary throttle valves closed. The adjustment will apply to all 1956 Rochester 4 GC carburetors as outlined below.

This is an on the car adjustment only. Following is the adjustment procedure:

1. Adjust carburetor idle speed and mixture. (Be sure secondary valves are closed during this adjustment.)
2. Shut off engine and manually close choke valve.
3. Position idle speed screw on the second step of the fast idle cam.
4. Measure clearance between the secondary lock spring and the secondary throttle operating lever. This clearance should be .042 inch. Bend lock spring to adjust.

It is important that this adjustment be made accurately. .042 inch clearance ensures the proper amount of tension when car is on hot idle. Too much tension (less than .042 inch clearance) could interfere with the idle speed adjustment.

### Correct Procedure For Removing Car Radio

Some difficulty is experienced in removing the radio on 1957 Pontiacs. The operation is relatively simple to perform when the following procedure is used. Disconnect battery. Remove the three sheet metal screws which retain the speaker housing to the floor pan and remove speaker housing. Disconnect speaker wires. Remove speaker from housing (on transistor radios only). Remove glove box. Disconnect speaker wires at rear speaker switch if so equipped.

Disconnect radio wire at fuse

block and disconnect antenna lead-in at radio. Electromatic radio only: Remove power unit from right side of dash by disconnecting three wires to receiver and removing two Phillips type screws and one wing nut. Remove nut, lock washer and plain washer from radio to rear brace stud at left rear side of radio. Loosen set screws in two outer control knobs; remove all control knobs, washers, and nuts which bear against instrument panel finish plate and remove radio assembly. Reverse the above procedure to replace radio. Caution: Be sure radio control is in off position when replacing radio. Do not turn radio on unless speaker is connected.

### Procedure For Removing Oil Pan On DeSoto S-27

To remove oil pan on the DeSoto S-27, disconnect the negative battery terminal. Remove distributor cap and place to one side of distributor. Disconnect throttle linkage. Remove oil dip stick. Raise car and drain engine oil. Remove starter motor. Remove fly wheel housing dust shield. Disconnect the steering arm at the steering gear cross shaft and the idler arm at the idler arm bracket. Pull the linkage downward to allow oil pan clearance. Disconnect exhaust pipe (single exhaust system) at the manifolds and the front of the muffler. Pull down out of the way, or remove from the car.

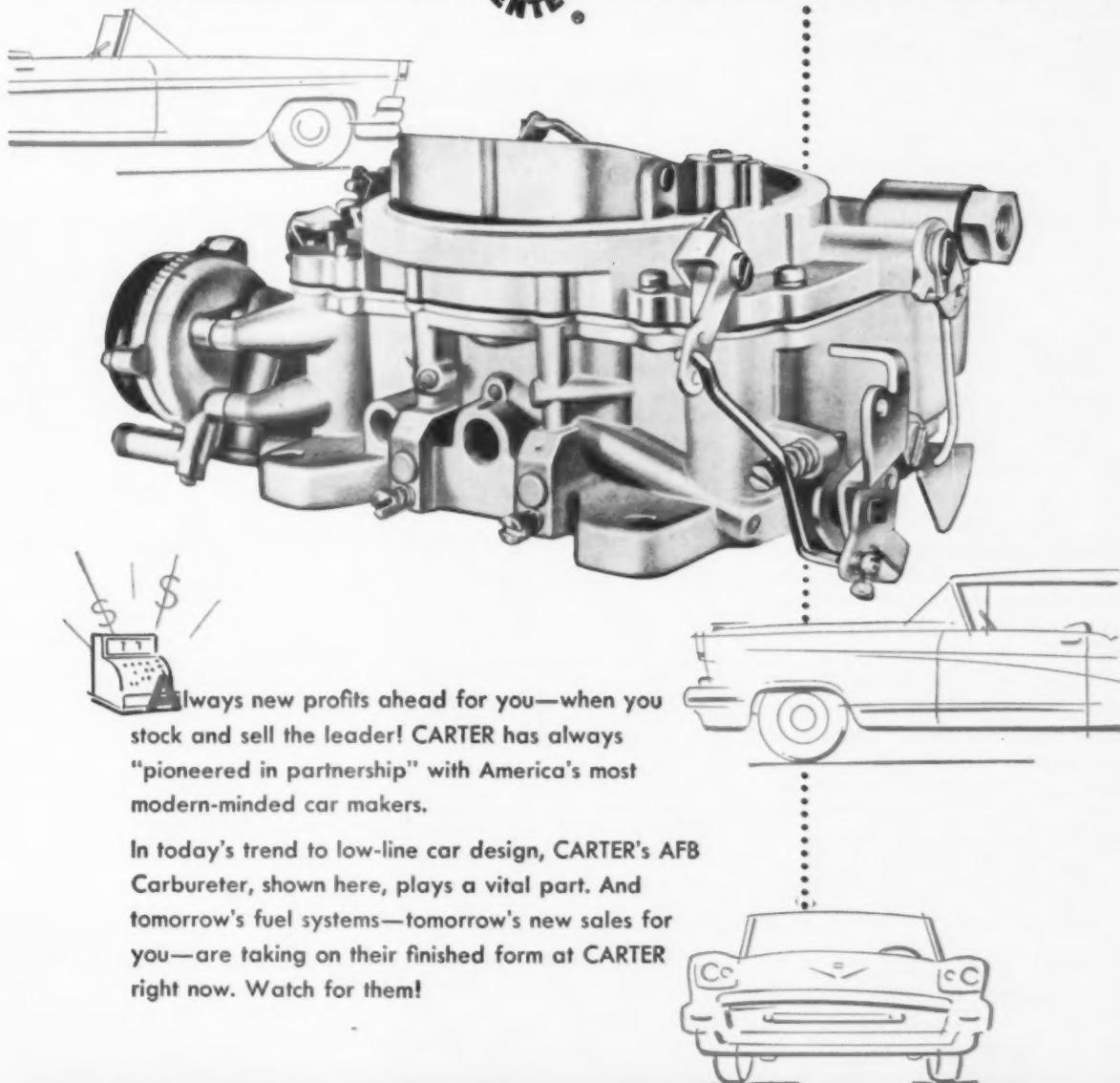
Disconnect front engine mounts, raise the engine approximately 1½ inches and install support blocks. Remove oil pan screws. Turn number one crank throw to approximately 8 o'clock when viewed from the rear of engine. Remove oil pan. The above procedure should be reversed when replacing the pan. Factory time is 1.7 hours. If equipped with crossover pipe add an additional .5 hours.

For progress that boosts your profits

count on

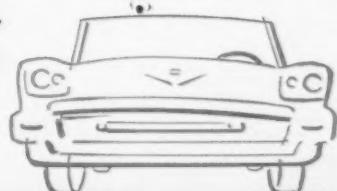
# CARTER

## MODERN FUEL SYSTEMS



Always new profits ahead for you—when you stock and sell the leader! CARTER has always "pioneered in partnership" with America's most modern-minded car makers.

In today's trend to low-line car design, CARTER's AFB Carburetor, shown here, plays a vital part. And tomorrow's fuel systems—tomorrow's new sales for you—are taking on their finished form at CARTER right now. Watch for them!



**CARTER CARBURETOR**

DIVISION OF INDUSTRIES

INCORPORATED  
ST. LOUIS 7, MISSOURI

## Keys to Survival Convention Theme

The annual conference of Independent Garage Owners of America gets under way, June 25, at Los Angeles, according to Howard Eves, Immediate Past President of IGOA and Convention Chairman. More than a score of timely industry topics will be spotlighted at the 1958 National Convention. Each designed as integral parts of "THE KEYS TO SURVIVAL," the 1958 Convention formula.

Industry today, according to Eves, is in a stalemate position. It seems to be settling to a long period of uneasy co-existence. Nineteen fifty-eight holds the

June 27 will be a key address by a speaker of "international renown." His identity and the very pertinent subject to be presented will be announced at a later date by Eves.

Other scheduled topics of interest at this session will include "History and Progress of IGOA" by Ralph James, Executive Director. "Welcome to IGO" by Henry Sorenson, President of

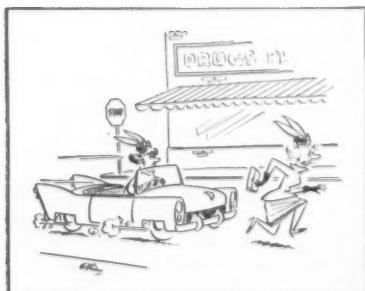
IGO of California. "The Chain of Supply" by W. Gerald Driscoll, Pacific Coast Manager of Fitzgerald Company, Torrington, Connecticut. "Salesmanship Pro and Con" by Brian Sando, Publisher of Motor West magazine. "Cooperation from Boosters to IGOers" by George Clinger, President of Automotive Booster Club No. 20 of Southern California.



promise of being one of the most competitive and probably one of the most momentous in the long history of automotive maintenance and repairs.

Topics to be discussed include the "momentum for progress and expansion in all major departments of automotive maintenance." The program will be fully outlined by some twenty industry and business leaders.

A highlight of the opening convention session, the "KICK-OFF" Luncheon at noon, Friday,



Here's the answer to car owners' complaints about *excessive tire wear and wobbly steering* caused by loose ball-joints.

This new Moog kit solves these problems by making Ford lower ball-joints *adjustable*. You "tune" the front-end to the exact degree of tightness desired with a twist of an Allen wrench. Positive lock prevents stud end-play. Assures perfect contact between stud head and seat *at all times*. Caster and camber cannot change due to stud movement—even while auto is in motion.

### ENCOURAGES PERIODIC UNDER-CAR "TUNE-UP"

When installing the K-890, suggest to the car owner that he *returns to you* for a 10,000 mile "tune-up." At that time, if needed, you can adjust

out any ball-joint looseness caused by wear (and check for other needed under-car repairs). A *custom adjustment* of the ball-joint is possible, accurate to within .001 of an inch. You "tune" the ball-joint for perfect performance!

Kit K-890 is an exclusive Moog design and quality built. The steel used is  $2\frac{1}{2}$  times the thickness of the cap on original equipment. Another example of a Moog part designed and built to do a better job than the part it replaces.

See your Moog Jobber for the K-890. And find out about the many other Moog chassis and suspension parts he offers to help your shop "Get on the BEAM"—a new program for increasing under-car profits. *Moog Industries, Inc., St. Louis 14, Mo.*

"Now the story becomes complicated. My hand is becoming tired and I doubt that you can read my writing. If you can you shouldn't be writing columns; you should be filling prescriptions. Let me summarize: From May into September I chased all over Nebraska and

Ohio trying in person, by telephone and telegraph to claim him back and purchase him privately. Remember that my practice is here outside of Chicago.

"Finally, at Hawthorne on Sept. 26, I claimed him for \$3,000 out of a race in which

he ran miserably. Everybody chided me. The barber had made a speech at the Lions Club saying how lucky we were to have ridded ourselves of this dog. What people did not realize was that I had the key to the horse's problem, or believed I had. Maybe it wasn't my ideas about his training; maybe it was only that to me he had become 'The Horse,' something much more than a cheap plater.

### The Gang in Whitey's

"I entered him for a claiming price of \$4,000, he won by ten lengths. Then for \$4,500, he won by eight. Then in an optional claiming race where I protected him, he won going away from horses worth \$6,000 and \$7,000. This was all within two weeks and in that space he won over \$6,000.

"The year is over now. We were beat in an allowance race with Big Sweep winning in our last out but we won close to \$14,000 all told.

"I proudly displayed Derby's winning photographs on my office wall and the boys in Whitey's Restaurant where I lunch all speak of him with respect and his picture hangs over the corner table where we usually eat as a group.

"After all, he is Dermatologist, a specialist in his field."

© 1958 New York Herald Tribune Inc.

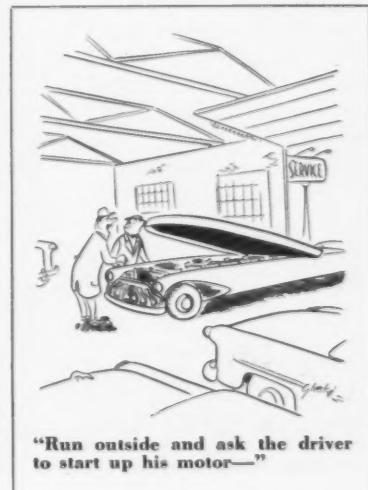
# K-890

(PATENTED)

Available now for  
1957-58 Ford, 1957-58  
Mercury and 1958 Edsel.  
Watch for other  
applications coming soon!



**MOOG MEANS MORE  
UNDER-CAR BUSINESS!**



# Jacking and Towing . . . Continued from page 41

## Towing Procedures

When towing a Cadillac with the front or rear wheels off the ground, always pull out the air lift control handle to lock the air in the system. Then depress the service valve on the accumulator tank and exhaust enough air to let the car down off the rebound snubbers to approximately normal standing height. This causes the air springs to behave like coil springs.

A manual operated override valve is used on all Buick, Cadillac, Oldsmobile and Pontiac cars. The purpose of this valve is to override or bypass the high or level control valves. Its purpose is to raise the car to full height so that the rebound bumpers contact the control arms at all four wheels. Then car can be jacked up to replace a tire. The manual override valve is operated by a knob under the instrument panel. Pulling out the knob bypasses the high control leveling valves and raises the car.

Buick, Cadillac, Oldsmobile and Pontiac are fitted with one height control leveling valve at the front and two at the rear.

Chevrolet, Ford and Mercury

are fitted with two height control leveling valves at the front and one at the rear. A solenoid valve is used on Ford and Mercury air suspensions and is actuated only when the car doors are open. It supplies air directly to the leveling valves at the tank pressure any time the doors are opened. The solenoid is connected to the courtesy light switch on the door. This causes the car to level immediately when the doors are opened.

Except for this bypass it would take a little time for the car to level since the leveling valves are of the delayed action type.

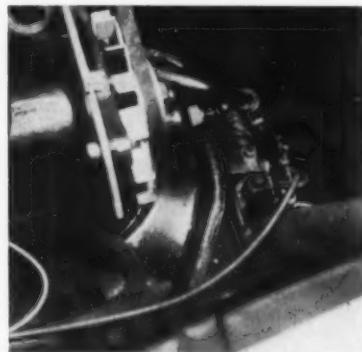
## Servicing the Chevrolet Suspension

On Chevrolet the leveling valves are located inside the air springs. The valve is not adjustable and if defective can be either overhauled or replaced.

To replace a front air spring, place stands under the frame and de-pressurize the system by opening the drain valve on the air storage tank. Let out the air of the wheel being worked on by cracking the air line at the lead

to it. Jack up the car sufficiently so that the operator can work on it.

Disconnect the tie rod from the steering arm. Disconnect the



Close-up of Air-Poise system's shut-off valve under hood of '58 Buick.

stabilizer link; disconnect the bottom of the shock absorber and then disconnect the lower ball joint stud to steering knuckle connection. Loosen the cross shaft bushing bolts to allow the lower control arm to swing down away from the upper control arm assembly.

## Additional Towing Procedures

Several precautions and instructions must be followed in addition to the standard towing procedure. In instances where the air suspension system is functioning but is exhausted of air, run the engine and compressor long enough to fill the system. Then close the manual shutoff valve. Raise car and proceed in the normal manner. However, if unable to operate compressor the system must be filled from a tow truck equipped with a compressor or storage tank.

Remove the cap from the Schrader valve on either high pressure accumulator or the junction block. Apply pressure until system inflates to normal. Close the manual shutoff valve on junction block and proceed as in normal towing procedure.

Be certain to open valve when car is no longer being towed. Due to the design of the air suspen-



Dash position of inside leveling control on Buick Air-Poise suspension.

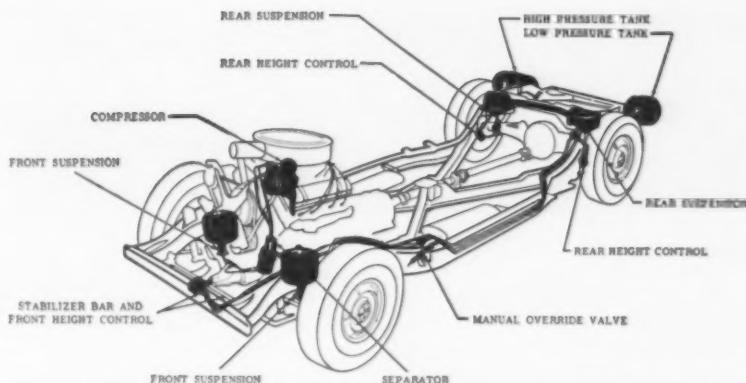
sion, a unit that has been completely exhausted of all air [perhaps through collision] and cannot be operated, several difficulties not normally found on standard suspension units will be present:

Without air pressure in the system the body and frame will settle down toward the ground until stopped by the suspension snubbers. In this condition the body frame as an assembly will not have more than two to four inches ground clearance. At this height, the car would be limited to relatively smooth roads. Towing speeds would have to be kept at 10 miles per hour or below.

However, the above towing conditions are not always present. In some cases, body frame assembly will have to be raised sufficiently with a suitable jack or hoist to allow installation of spacer blocks. Using a suitable jack or hoist, raise front of body frame assembly far enough so that the inner ends of both lower control arms are pointing upward at a slight amount.

Take a piece of 2 x 6 board, [one that will not crack, splinter or break], and securely attach under the crossmember and to the outer portions of the lower control arms.

Suitable seat clamps, chain or



Above: schematic of Oldsmobile air suspension system. High pressure air is supplied by a twin cylinder compressor running off dual pulley from engine.

steel cable may be used for this attachment. Another way would be to use a piece of boiler plate, channel iron or angle iron in place of the wooden board. The attachment must be secure.

## Indianapolis Race Plans

Another record-breaking 500-mile race next May 30th was predicted by Tony Hulman, president of the Indianapolis Motor Speedway, as entry forms were placed in the mail for the 42nd annual International classic.

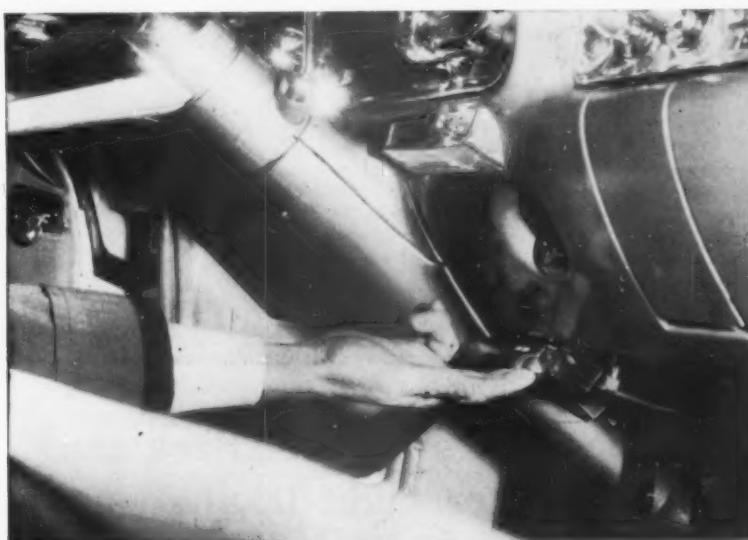
The entry fee again was set at \$500 a car, with midnight of

April 15 as the deadline, and Mr. Hulman indicated he expected the purse to exceed \$300,000 for the second straight year.

"Several new cars already are known to be under construction," he said. "The entire racing fraternity also will have the benefit of a year's experience with the smaller engines, introduced last May, and a new race record of better than 136 miles an hour is a distinct possibility."

Although some minor changes have been made in the 1958 entry form, it is basically the same as last year. Non-supercharged engines again will be limited to a maximum piston displacement of 256 cubic inches and supercharged engines to 170 cubic inches. Diesel engines up to 335 cubic inches will be eligible and no limit has been placed on turbine engines.

Sam Hanks, who set a race record of 136.601 miles an hour to win last year's event, has announced his retirement. But all of the other drivers in last year's starting lineup, with the possible exception of fifth-place winner Andy Linden, are expected to return along with several additional veterans and a few outstanding rookies.



Dash position of inside leveling control on Cadillac New-Matic suspension.

*After one shuddering bite, the customer beckoned the waitress and asked, "Miss, what's wrong with these eggs?"*

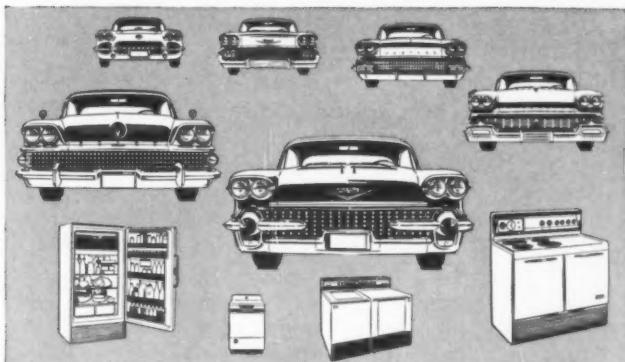
*"Don't ask me," she snapped, "I only laid the table."*



# SELLING SLANTS

## MONEY-MAKING FACTS

# The General Motors "AIM TO LIVE" For All Retailers



### *What is "Aim To Live"?*

Whenever your customers drive at night, their safety depends on what they can see. What they can't see *can* hurt them. Repeated checks prove that more than 50% of all cars have improperly aimed headlamps and are losing as much as 80% of night vision.

In the interest of greater night driving safety, General Motors is taking the lead in promoting this vital service with this great new "Aim To Live" public service program.

The "Aim To Live" Program will be backed by powerful advertising in leading national magazines as well as on television programs sponsored by General Motors Divisions. Car owners everywhere will be urged to stop in at any authorized "Aim To Live" Headquarters point for a headlamp inspection and aiming check.

### *Nation-wide March-April*

#### *\$100,000 Consumer Contest—116 Big Prizes!*

The spring climax of the "AIM TO LIVE" program will be an exciting 60-day \$100,000 safety slogan contest open to all licensed drivers during March and April. All "Aim To Live" Headquarter retailers will be provided with official entry blanks and identification signs and banners.

Join this important public service project! Back the "Aim To Live" Program for greater night-driving safety!

# OF THE MONTH! FOR DEALERS

# "PROGRAM. . .

## Selling Guide Headlamps



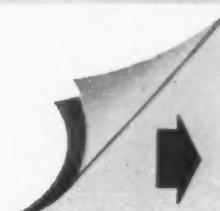
ORDER YOUR STOCK OF GUIDE HEADLAMPS  
TODAY FROM YOUR REGULAR AC SUPPLIER

*Here's how service stations and  
repair shops can participate in the  
"Aim To Live" Program*

Any service station or garage stocking Guide T-3 Headlamps and having a mechanical aimer for aiming modern headlamps (headlamps with aiming points) is considered an official "Aim To Live" station.

*AC field personnel are now contacting  
retailers of Guide Headlamps to explain  
the complete program and to distribute "Aim  
To Live" point-of-sale identification kits*

Now's the time to become an "Aim To Live" station. Order a stock of Guide Lamps from your regular AC supplier. He will see to it that the AC field man sets up your station as an official "Aim To Live" Headquarters point. You, too, can then become a part of this vital project and qualify your customers to participate in the big March-April contest.



AC SPARK PLUG  THE ELECTRONICS DIVISION OF GENERAL MOTORS

Watch Walt Disney Studios' ZORRO every week on ABC-TV



# SELLING SLANTS

## MONEY-MAKING FACTS

Here's your value-packed

## MID-WINTER DEAL ON AC PRESSURE CAPS



**AC Rack**—Heavy all-metal construction for wall or pump island installation. Finished in high luster AC Blue, Red and White. If you don't own an AC Cooling System Tester, why not order one of these valuable service tools also . . . available from any AC supplier for only \$10.00.

*This handy AC Tester Rack and "Hot Pad" Mitten are yours with an order for an FM-20 AC Pressure Cap Assortment*

Two valuable service items . . . the all-metal Storage Rack (for your Anti-freeze and AC Cooling System Tester) plus a heat resistant AC "Hot Pad" Mitten for removing hot pressure caps can be yours free of extra charge. Here's how:

You buy the FM-20 Assortment at the regular price plus \$4.05. You receive the Rack and the Mitten plus 3 additional popular type AC RC-9 Pressure Caps. When you sell these caps, you recover your total additional investment. Simple? You bet . . . why not place your order today?



**AC FM-20 Assortment**—Seven popular fast-moving pressure cap types, twelve caps in all, packed in this attractive combination shipping and display container. Just the ticket for the average service station.

YOUR AC SUPPLIER HAS ALL THE DETAILS • CALL HIM TODAY!

# OF THE MONTH ! FOR DEALERS

Presenting the Oneidacraft Tableware

## FOLLOW-UP PROMOTION ON AC OIL FILTERS



*Complete your Oneidacraft  
Stainless Tableware with these  
16 beautiful additional pieces*

Yes, dealers everywhere have asked for the opportunity to complete their AC Oneidacraft set . . . so 16 additional Profile Pattern pieces are now available on that same attractive basis as the original offer released last fall.

Demand is bound to run high for this outstanding value so we urge you to act promptly . . . order an FM-35 today!

### **FM-35 PROMOTION ... no charge to you!**

The deal's the same . . . you buy 24 AC Elements of your choice; pay the regular price plus \$7.50. You receive the 16 pieces of Oneidacraft plus three popular AC Elements worth \$7.50. When they're sold you've recovered your total additional investment.

#### **HERE'S MORE GOOD NEWS!**

If you didn't get the initial FM-31 Assortment consisting of the basic 16-piece Oneidacraft set . . . 4 Knives, 4 Forks, 8 Teaspoons, it's being reintroduced because of popular demand. This is your opportunity to secure both assortments.

**FM-35 Assortment Includes:** 4 place settings of 3 pieces Oval Bowl, Soup Spoon, Salad Fork, Iced Drink Spoon. **Plus . . .** Butter-Knife, Sugar Spoon, Large Serving Spoon, Large Serving Fork.



AVAILABLE FROM ANY



SUPPLIER

AC SPARK PLUG  THE ELECTRONICS DIVISION OF GENERAL MOTORS Watch Walt Disney Studios' ZORRO every week on ABC-TV

## Highway Program . . . . .

Continued from page 39

seem. They're getting nearer as more contracts are let and outlays for road-building climb.

Spending topped the \$9 billion figure in 1957. This sum included many things. Close to \$6 billion went for right-of-way buying and for construction. But \$2 billion was spent for maintenance. Other large amounts were used for administration, highway police, interest, and bond redemption.

In 1958, money invested in roadbuilding and all that goes with it will rise to \$10 billion. This doesn't mean anything like \$10 billion worth of paved roads will be put in place. The building and right-of-way portion will come to perhaps \$6.8 billion.

Sums such as these help to point up two facts: Giving the country safe, sturdy roads will cost much more than was counted on a few years ago. And the program that's underway won't be completed until at least 1973. Even if financing and all other details are lined up in 1971, completion will consume two additional years.

A number of factors can be blamed for the increased costs. Right-of-way buying is proving enormously expensive, especially around large cities. Labor costs have grown since the middle of 1956, and so have the prices of materials. These advances spell out less highway per dollar than was counted on earlier.

Paying for the federal government share of the enormous program is not any problem at this time. The government portion amounts to 90 pct. of the interstate system funds and half of the primary, secondary, and urban road money. Receipts into the federal highway trust fund are ahead of outlays. Money intended to be paid out in a few years, though, may exceed the intake.

Trust fund income from taxes

was expected to total \$2 billion in the months from last July 1 through next June 30. The high rate of receipts last fall, though, made it appear likely that an additional \$400 million may be brought in.

More than \$3 billion worth of work for the interstate net of highspeed roads has been programmed since mid-1956. This weighty sum, including more than \$2.7 billion in federal-aid money, is supposed to buy 4,181 miles of highway work.

Completed work adds up to 1,100 miles of projects, the U.S. Bureau of Public Roads says. But finished projects, in many cases, are not sections of highway ready for use. Some may be no more than graded stretches. By a reasonable estimate, possibly 350 miles are paved, landscaped, and in final shape.

### Can States Pay?

A question frequently asked in 1956, and later, was whether the states could dig up their part of the highway funds. They need to provide only 10 pct. of the interstate system money, but they must pay half the costs of the primary, secondary, and urban roads. The states should be ready with at least \$850 million for these three latter programs in 1958.

Best indications are that most states will meet the federal highway funds with money of their own. To insure this, a number will trim their self-financed road work, so as to stay abreast of the federal-aid schedule.

Primary, secondary, and urban roads are vital to the business life of every region in the country. They will remain so, for the interstate system—when completed—is to carry only 20 pct. of the U.S. vehicle mileage. Yet, the interstate net, with its dramatic design, gets most of the public attention.

A system of superhighways, it will reach into 48 states, serving the capitals of all but six. It will assist the long-distance traveler, saving time and expense for him. And it will remove from the streets of many cities the heavy traffic that passes through without producing any local revenue.

By a decision made in 1957, the interstate grid will include 2,102 miles of toll roads in 15 states. These pay routes are located in New England, several of the Atlantic seaboard states, Pennsylvania, Kentucky, and the Midwest. Somewhat more than 1,800 miles of these roads are in operation.

Their status as toll roads is not changed by their acceptance into the interstate system. Congress is to decide whether the states are to be reimbursed for these roads. If the payments are made, Congress will name the methods and amounts.

### Locations of 1,000 Mile Routes

Some important changes in the shape of the interstate system were recently disclosed by the government. Foremost of these was the fixing of locations for the 1,000 miles of highways that will round out the 41,000 miles now on the books.

Four routes make up the newlycharted 1,000 miles. Route locations will be of major interest to anyone who has, or plans to have, a place of business located between: Denver, Colo., and Cove Fort, Utah; Fargo, N. D., and Sioux Falls, S. D.; Ellensburg, Wash., and Pendleton, Ore.; and Baton Rouge, La., and the southern tip of Mississippi.

Longest of these new stretches, 547 miles, is the route west of Denver. It will bend to the southwest to join an interstate link running from Salt Lake City through Las Vegas into California.

Length of the north-south stretch between Fargo and Sioux Falls is to be 230 miles. It adds an important section to high-

ways between Mexico City and Winnipeg.

The Ellensburg - Pendleton road will connect the Seattle-Spokane and the Boise-Portland, Ore., portions of the interstate net. This connection is to run about 132 miles.

Shortest of the new additions is the 91-mile belt to extend eastward from Baton Rouge. It was purposely set inland from the Gulf Coast. Its location was chosen to prevent high-water interruption of traffic during the hurricane season.

Besides identifying these additional stretches, the government has redistributed 1,102 miles within the original 40,000-mile system. Now planned are 886 miles in new city-to-city routes and 216 miles in or around cities.

Almost half the new city-to-city distance will be in highways from Canton, Ohio, to the vicinity of Charlotte, N.C. Allocated length of this route is 431 miles.

A 170-mile express highway is to run from Nashville, Tenn., to Cairo, Ill. It will give businessmen and tourists driving from the St. Louis area a better approach to the South Atlantic region.

Other new stretches lie within Texas, Pennsylvania, and Utah. A San Antonio-Corpus Christi link will extend 143 miles. One from Pittsburgh to Erie, Pa., will run 102 miles. The Ogden-Echo Junction, Utah, route is to be only 40 miles long.

These additions and changes in highway location underscore the ceaseless spread of the public road network. Demands for service and maintenance will continue to grow so long as the highway program keeps up and adds to its momentum.

Congress, during this year, will gather information that has a strong bearing on the future of the building drive. During January, the lawgivers received for the most part reports from the Bureau of Public Roads on

these subjects:

1. Revised estimates of the cost of finishing the far-from-complete interstate system. The cost figure of under \$28 billion, accepted in 1956, now is plainly too low.

2. Money needed if the states are to be paid for roads, both toll and free, they've built to interstate-system standards. These roads include 4,00 miles of free highways and the 2,102 miles of toll turnpikes mentioned earlier.

Besides considering the BPR reports, the congressmen will advance some ideas of their own on the conduct of highway activities. A number of lawmakers from the West are upset about the way funds for roadbuilding are being divided among the



states. They will want to be convinced their states are getting a fair share of the money.

An eastern congressman, Rep. George H. Fallon, D., Md., and a professional roadbuilder, Maj. Gen. Louis W. Prentiss, have been sizing up the highway work recently. Mr. Fallon, though finding construction activity not too impressive, concludes that a big backlog of planned projects should be ready for contract soon. Gen. Prentiss, executive vice president, American Road

Builders Assn., says the program should "speed up next spring."

Over the full year, the amount of accomplishment should be worth watching—and worth the wait you've had.

## Chicago Show Sets Attendance Mark

Attendance at Chicago's fiftieth annual Automobile Show, January 4-12, exceeded the half-million mark for the first time in the show's history. A crowd of 78,915 flocked to the first Sunday exhibition for a single-day record.

Edward L. Cleary, show general manager, described the auto extravaganza as "the greatest American automobile show." He explained the show offered no "name" personalities and, as a result, attracted primarily automobile-minded patrons.

More than 400 cars and trucks were displayed with 200 American cars representing 20 makes. Foreign cars totaled 100; American trucks, 80; and antique cars, 25. An added attraction were the Army's two medium-range ballistic missiles, the Redstone and the Jupiter.



J. M. Heffelfinger, vice-president of Boozer-Test Management Service, addresses the recent sales convention of Purolator Products, Inc., Rahway, N. J. He discussed the importance of a company's sales force.



# Managing your money

## TAX QUIZ

/ a chance to test  
general knowledge



*Correct answers to Quiz may be found on page 134*

*Test your knowledge of the federal income tax law on this quiz by the American Institute of Certified Public Accountants in cooperation with the Internal Revenue Service.*

1. During the past year you spent approximately \$1,000 for built-in bookcases and wall-to-wall carpeting for your office. Since your lease has only four years to run, you may . . .

- (a) Deduct the \$1,000 on your 1957 tax return
- (b) Amortize the cost over the next four years
- (c) Depreciate it over the life of the furnishings

2. When you were transferred to another city, your company gave you a sum of money toward the cost of moving you and your family. For tax purposes you should consider this money as . . .

- (a) A gift that is not taxable
- (b) Income that is subject to tax with a deduction for only your personal moving expenses
- (c) Income that is subject to tax with a deduction for the cost of moving your entire family

3. You have invested in several blue-chip stocks. The dividends received from this investment are exempt up to . . .

- (a) \$50 whether you or your wife owns the stock

- (b) \$100 if the stock is held jointly by you and your wife
- (c) \$100 regardless of who owns the stock, providing you file a joint return with your wife

4. You are *not* permitted to deduct as contributions your donations to which of the following organizations . . .

- (a) Charitable societies
- (b) Educational institutions
- (c) Political parties

5. Your daughter, who was hospitalized for several weeks in the earlier part of 1957, was married in November. If she files a joint return with her husband, you may . . .

- (a) Not claim her as a dependent but you may deduct her medical expenses
- (b) Claim her as a dependent and deduct her medical expenses
- (c) Not claim her as a dependent and you may not deduct her medical expenses

6. You filled very few inside straights during the past few months and lost approximately \$300 to the members of your Thursday night poker club. You should . . .

- (a) Deduct the loss in computing adjusted income
- (b) Subtract the loss from adjusted gross income
- (c) Give up poker and start watching

*(Continued on page 134)*



# General Motors

launches a vital new program  
to make America's highways safer after dark

ON THE NEXT TWO PAGES you will see one of the most important messages ever published by General Motors. It concerns the safety of every man, woman and child who rides in cars at night.

The problem that confronts us all is a serious one. It centers in these three vital yet little-known facts which have been reported by national safety and research organizations:

- 1 *Three times* as many fatalities occur after dark as during daylight hours, in proportion to mileage driven.
- 2 *Up to 80%* of the light needed for safe driving vision is lost when headlight aim is too high, low or offside.

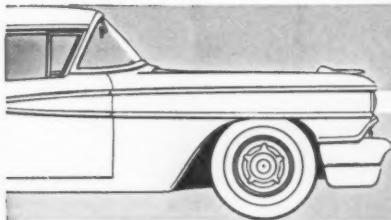
3 *More than half* of all cars on the road today have headlights which are NOT aimed accurately and safely.

Something must and can be done to correct this situation. In the interest of public safety, General Motors has developed a program to publicize the need for headlight aiming and to make it easily available to all motorists through your cooperation.

The success of the entire program . . . the saving of countless lives . . . depends upon conscientious and convenient headlight aiming service. I earnestly hope you will do your part.

*Harlow H. Curtiss*

PRESIDENT



# AIM



DRIVER'S HEADLIGHTS AIMED TOO LOW



DRIVER'S HEADLIGHTS AIMED CORRECTLY

## A public service HEADLIGHT AIMING RICH REWARDS FOR YOU!

The photos above show a major reason why highways are so much more dangerous after dark—over 50% of all drivers are losing up to 80% of the light needed for safe vision *because their headlights aren't aimed right*. We in the automotive industry can help save thousands of lives by (1) educating the public to the need for accurate aiming, and (2) making it easily available at reasonable cost.

**GENERAL MOTORS AIDS TO DO ITS PART** by sponsoring this educational AIM TO LIVE program. A nation-wide magazine, television and publicity campaign, now getting under way, is telling practically every American motorist how headlights get out of aim and why they should be re-aimed twice a year for

safety. During March and April, a \$100,000 AIM TO LIVE safety slogan contest will stimulate added interest. Participating dealers, garages and service stations will be given supplies of AIM TO LIVE display material and contest entry blanks at no cost.

**ONLY YOU CAN FINISH THE JOB!** All this educational effort will do little good unless we make it easy for drivers to get their headlights *aimed right*, and remind them when their cars are being serviced. *That's where you come in!* This is a great new opportunity to perform a vital service for your customers and increase both their goodwill and your income, by checking their headlight aim as regularly as their brakes.



HOW YOUR CUSTOMERS  
BENEFIT WITH  
MODERN  
HEADLIGHTS

- These three aiming points, moulded into the lens of both conventional and dual types, permit quick, accurate headlight aiming even in broad daylight.
- Modern headlamps give much more light than those built before 1956.
- They distribute it for safer vision.

# AIM TO LIVE



NEW MECHANICAL HEADLIGHT AIMERS

The Nation's Newest, Most Important Highway **SAFETY CAMPAIGN**



## PROGRAM...with

**IT'S EASY TO DO YOUR PART**—(1) Get a new low-cost mechanical headlight aimer if you don't already have one. It's simple to use, takes up no extra space and quickly aims all modern platform-lens headlamps without even turning them on. (2) Train your men to use it *right*. Anyone can learn how in just a few minutes.

**AIM TO LIVE MEANS BUSINESS!** You'll find *more than half* your customers' headlights need aiming right now—and *all* headlamps should be rechecked twice a year. This alone adds up to a lot of potential for you, but that's not all. Many of your customers should replace their obsolete headlamps with modern platform lens type that can be quickly and accurately aimed and give 15% more light. That means a lot of replacement business too!

**NOW IS THE TIME TO GET READY!** More and more motorists will be asking you to check their headlights as this AIM TO LIVE program gathers momentum. So make sure you have an adequate supply of modern replacement headlamps, accurate aiming equipment, and men who can use it *right*. If you have not already been contacted directly, call your authorized General Motors dealer or AC Guide Lamp Supplier for full details.

will reach over 100 million Americans via national magazines, Sunday newspaper supplements, television, publicity and displays



## General Motors



## 151. Replacement Battery

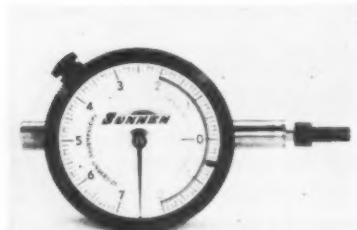
Globe-Union, Inc.: Announces the availability of four standard batteries that, according to the



company, will fit nearly all of today's cars. Also available are eight standardized high-quality batteries. The line allegedly has new hold-down pieces which extend the battery's dimensions. The pieces also house the hold-down bolts. Two channels located in the bottom of the battery case provide for shorter, wider batteries. Narrower units had been used as original equipment. It is said the new batteries are protected by a thin-walled plastic case.

## 152. Indicator Dial

Sunnen Products Company: A new indicator dial, AG-50, is available to users of the company's AG-300 Precision Clearance Gage. According to the company, clearances are shown in green numbers. Interference, or press fits, is displayed in red



markings. A new adjustable limit marker allows presetting of tolerance limits prior to gaging. In cases of pin-fitting, actual

wrist-pin size is represented by zero. The identification is the same for manufacturer's size when reconditioning connecting rods. The company reports that its new gages are equipped with this dial.

## 153. Rust Remover

Car-Freshener Corp: "Magic Rust Eraser," a new chrome restorer, is available. The company claims it contains no corrosive materials and will not scratch the surface. The cleaner is said to have no rags or liquids. Un-sightly rust allegedly vanishes with minimum effort.

## 154. Paint Spray Guns

Binks Mfg. Company: Two light-weight paint spray guns have been announced for house and



shop upkeep. All paints, including fast-drying lacquers, are suitable. The company claims both models can be used with air compressors rated to 1 hp. Both models, 35 and 36, provide for an external mix nozzle that eliminates nozzle buildup when spraying fast-drying materials. This is reportedly accomplished even with a 1/4-hp compressor.

Model 35, a bleeder-type without air valve, has a knob adjustment for changes from siphon to pressure cup feed. The gun offers an internal mix nozzle for large areas and is equipped with a one-quart siphon cup. The other, model 36, is designed for a fluid-pressure tank. It is described as the non-bleeder type, requiring a constant speed unloader on the compressor.

## 155. Battery Lifter

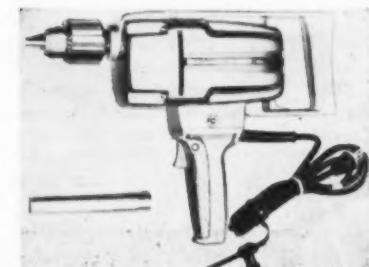
Zim Mfg. Company: Announces a new battery lifter that clamps



to any 6- or 12-volt storage battery. Made of steel, the new lifter (model 711) weighs approximately 2 1/2-lbs. Its design allows use as an all-purpose handle. The company claims that batteries can be removed, replaced, or carried without damage to the terminals.

## 156. Reversible Drill

Portable Electric Tools, Inc.: A reversible 1/2-in. electric drill has been developed. Entitled Shopmate Model 520, it reverses



by means of a switch. According to the company, an aluminum (Continued on page 104)

The man who sells

**OLDSmobility** →

is backed by the features  
with new sales appeal!



**Oldsmobile's new  
Anti-Spin Rear Axle is  
delivering extra  
SALES POWER to  
demonstration-minded  
dealers!**

Here's a demonstration natural that's due to pay *big dividends* for Olds Dealers everywhere! Oldsmobile's new Anti-Spin Differential has benefits that every prospect can easily understand! In any situation where one wheel has better traction . . . the power is automatically transferred to the wheel with the grip. And regardless of climate or weather, every driver has encountered conditions where Anti-Spin would have helped make the going easier and safer!

Although the obvious benefits are in ice and snow . . . Anti-Spin gives the same positive pulling power in mud and sand. Result: Demonstration-minded dealers everywhere are cashing in . . . proof again that it pays to be an Olds Dealer—all ways!

**OLDSMOBILE**

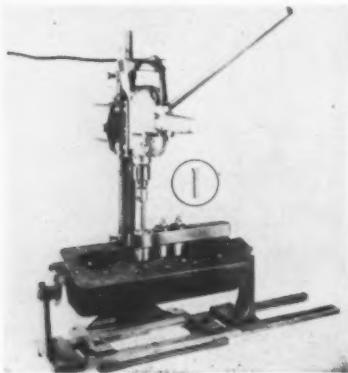
DIVISION OF GENERAL MOTORS CORPORATION, LANSING, MICH.

## New Products . . . . . Continued from page 102

num alloy covering provides a low weight-to-power ratio. Features include: 3-jaw precision gear chuck, universal 115-volt AC/DC motor with 6 amps, and a removable top handle for close-quarter drilling.

### 157. Valve Tools

**Versnick Mfg. Company:** Valve guide sleeves, equipment, and tools for servicing late model



cylinder heads are available. According to the company, this valve guide equipment permits continued valve use. It is said to restore cylinder heads normally discarded due to worn valve guides. Besides installing and removing valve guides, the equipment also removes and installs valves, grinds and installs valve seats, and doubles as a drill press.

### 158. Primer Surfacer

**Pittsburgh Plate Glass Company:** A new synthetic primer-surfacer, "Speed-Sand," is announced. The enamel undercoat is said to provide rapid drying, easy sanding, and good filling qualities. It also offers strong holdout of lacquer over enamel surfaces. According to the company, the product's leveling properties permit its use as non-sanding primer surfacer. "Speed-Sand" is available in four colors

and reportedly can be sanded in two to three hours.

### 159. Leak Detector Kit

**Allen Electric & Equipment Company:** A leak detector kit is offered for both oil and water leakage. Designed for passenger car or truck transmissions, the kit uses a fluorescent dye with an ultra-violet ray lamp. It is said to also locate water leaks in the vehicle coolant system. Ten packages of water soluble dye and six bottles of oil soluble dye are included.

### 160. New Tire Changer

**Coats Company:** A manually-operated tire changer, the 3-Star Tireman, designed to reduce changing by minutes, is available for wheels of 12 to 24-in. Beads are loosened by a cam-action principal providing great-

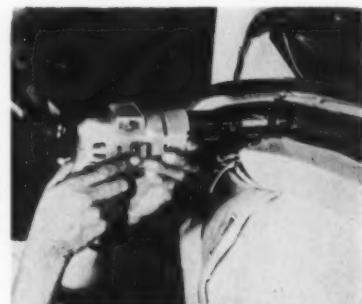


er lift and leverage. According to the company, the changer's shoes are made of wide, steel arcs. The shoes unfasten the

beads without damage. The company reports that a screw-type clamp, requiring a mere twist, locks the wheel to the stand. The changer is designed for both tubeless and conventional tires.

### 161. Trim Assortment

**Black & Decker Mfg. Company:** A special automotive trim assortment is offered that also



provides for upholstery installation. According to the company, the assortment consists of an electric positive-clutch Scrugun, plus a variety of bits and sockets for driving and removing both screws and hex-head bolts. Included are a magnetic-bit tip holder and a substantial offering of bits. The Scrugun, a pistol-grip model, is equipped with a reversing switch for the removal of screws and nuts. It is said that a positive-clutch mechanism allows the operator full torque control.

### 162. Spare Tire Remedy

**The Firestone Tire & Rubber Company:** A spare tire that can't go flat and can be installed without removing the punctured tire has been announced. The tire, Perma Spare, is a thin steel disk with a two-inch solid rubber tread. It is 1 1/4-in. thick and slightly larger in diameter than

**Charity may begin at home—but a man becomes more charitable by giving to the homeless.**

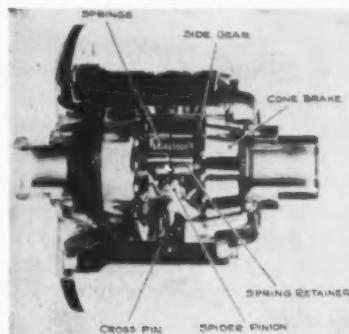
a regular tire. It reportedly weighs about 30-lbs. The new spare is installed by jacking up the damaged tire, removing the hub cap, and attaching Perma Spare to the outside of the punc-



tured tire. The company claims the spare can be driven at 40 miles per hour. It is also capable of carrying a motorist 100 miles for repairs. The spare is designed to fit into a recess in the trunk floor.

### 163. New Differential

**Borg-Warner Corp:** A new spin-resistant differential has been announced providing greater traction over slick surfaces and hazardous roads. According to the company, the unit is interchangeable with current differentials. It reportedly consists of fewer parts than earlier models. The new unit, it is said, equalizes rear wheel traction. In cases of equal traction to both rear wheels, the differential operates



as a conventional unit. The company claims it will prevent one axle shaft from locking. The unit is designed for cars, trucks,

tractors, construction machinery, military vehicles and lift trucks.

## Merchandise

### 164. Service Stand

**K. R. Wilson Inc.:** A service stand for large engines and transmissions has been reported. An outboard safety support reportedly fastens the truck or car engine at two points. According to the manufacturer, a self-locking geared head permits engine or transmission rotation from a fractional inch to 360 deg.

### 165. Tune Up Hoist

**Snyder Mfg. Co.:** To reach partially inaccessible engine parts on 1954-57 V-8 automobiles, a



tune-up hoist is available. According to the manufacturer, the hoist can be raised and will support more than 1000 lbs. Special caster wheels allegedly insure movement. It is said the hoist doubles as a tool bench.

### 166. New Brake, Clutch Line

**Eaton Manufacturing Co.:** A new electro-magnetic line of industrial brakes and clutches has been released. According to the manufacturer, the line functions on magnetic engagement of the armature and the field magnet. It is said the controls may be mounted to conserve space. Further advantages reportedly include rapid response, effective cooling and automatic adjustment. The company claims that

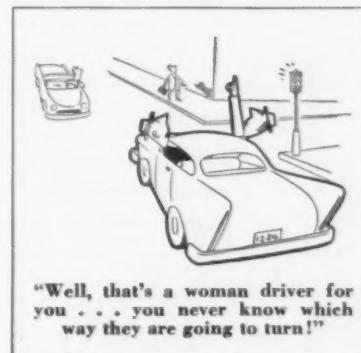
the basic clutch, brake, clutch-brake and clutch coupling are available in a variety of sizes.

### 167. Cable Merchandisers

**United Motors System, GM Div.:** A new trio of Packard Cable merchandisers are now available to United Motors System Packard Cable distributors and their



dealers. Offered is a Packard wiring and terminal caddy with a full-width handle and pullout tray. According to the manufacturer, the "caddy" contains parts required for most rewiring tasks. Holding five spools of cable, a new Packard spool-cable board is included. It is claimed the board will support one spool of high-tension and four spools of low-tension cable, and can be hung from walls or at the end of a stocking bin. The final member is a battery cable assortment which contains eight 12-volt battery cables for use on late model cars, and five 6-volt cables.



with the Cruise-O-Matic variety.

The standard suspension is on four coil springs, the rear springs cradled on trailing arms. Lateral rear control is accomplished by a linkage attached to the heavy bracket of the axle housing. This bracket is found on the axle's rear side. When air ride is used, air bags replace the

coil springs interchangeably.

The low silhouette of the Thunderbird presented several engineering problems. Engineers found there was no room for the conventional radiator. Instead a cross-flow radiator is used with a separate fill and surge tank connected by molded rubber hoses. Engineers claim the new

unitized body contains more than 8000 welds.

Turning to the interior; the two front seats are of individual design. The right back-rest collapses to the seat for rear compartment entry. Many controls formerly located on the dash board will be found on an elongated console control panel, placed between the front seats. air conditioner, power windows and radio speaker. The panel also carries ash trays for both These controls include heater, front and rear passengers.

## INLAND Announces a **NEW** 1-PIECE RADIATOR SHOP



Now, radiator servicing can give you worth-while profits. For Inland has developed the first complete 1-Piece Radiator Shop!

**COSTS LESS TO BUY** It gives you a complete radiator department—everything you need to do the entire job—TEST, CLEAN and REPAIR radiators.

**COSTS LESS TO OPERATE** You don't need a full time operator. One of your present employees (our free factory school teaches him everything) in only a part of his time will produce a nice additional profit with no increase in overhead.

**TAKES LITTLE ROOM** Complete unit requires only 11' 7" of wall space. Yet.

### WRITE for Free 48-Page Book

showing equipment, prices, training course, "Pays-For-It-  
self" purchase plan and experiences of other operators.

### INLAND MFG. CO.

1108 Jackson Street  
Dept. MA-2 Omaha 2, Nebr.  
World's Largest Manufacturer of  
Radiator Servicing Equipment

INLAND MFG. CO., Dept. MA-2 1108 Jackson St., Omaha 2, Nebr.  
Please send free 48-pg. book describing new 1-Piece Radiator  
Shop, training school, prices, etc.

NAME \_\_\_\_\_ (PLEASE PRINT)

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

BY \_\_\_\_\_ TITLE \_\_\_\_\_

If dealer, make of car sold \_\_\_\_\_

Are you now operating a radiator Dept.?  Yes  No

The Lone Ranger and Tonto were riding out West when all of a sudden they saw five thousand Indians in front of them. They turned to their right; the same thing; and to the left, the same thing. The Lone Ranger hastily inquired, "What shall we do, Tonto?" And Tonto turned to him and calmly replied, "What do you mean 'we,' white man?"

## Corvette . . .

Continued from page 57

tors for approaching traffic.

The most apparent face change occurs in the front. Dual headlamps, a vertically-barred, nine element grille and wrap-around bumpers are new. GM engineers have retained the sports car motif with ventilation-type hood louvers, false air scoops on the fenders and curved body depressions. The new model has made a frame revision for front and rear bumper brackets. There is also a tube-on-center radiator replacing the cellular design, and a new rear spring.

But the 1958 Corvette story is one of optional equipment and buyers have a wide selection. In addition to engine variations there are heavy duty clutches. Also a special cam, an axle for positive power with one rear wheel in traction, a hydraulic folding top, electric windows, heavy-duty suspension system, and 8000 rpm tachometer for fuel injected models using special camshafts.



NEW!

PROTO'S

# GOLDEN KNURL HOLDS EXACT JAW OPENINGS AUTOMATICALLY!

NO BUTTONS ... NO LEVERS ... NO GADGETS

Available in FIVE popular sizes

4", 6", 8", 10" & 12"

ANOTHER REASON YOU'LL

**PREFER  
PROTO  
PROFESSIONAL  
TOOLS**



2209 Santa Fe Avenue  
Los Angeles 54, California

DIVISION OF PENDLETON TOOL INDUSTRIES INC.

New! . . . and available now!

## PROTO'S CLIK-STOP ADJUSTABLE

... the amazing wrench with the Golden Knurl that holds exact jaw openings . . .

### AUTOMATICALLY

NO BUTTONS . . . NO LEVERS . . . NO GADGETS

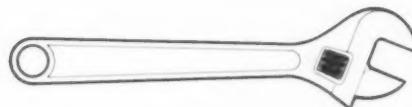
Colorful display makes it easy to select Click-Stop wrenches. No increase over regular prices. Now available in 4", 6", 8", 10", and 12" sizes. (16" and 20" sizes later) Look for them at your dealers.

The Click-Stop handles like an ordinary adjustable. Merely turning the Golden Knurl clicks jaw automatically into any opening wanted . . . even non-standard or foreign sizes. Won't work loose.

Drop-forged from fine Protoloy steel. Thin head design for hard-to-get-at jobs. Highly polished, chrome plated.



Adaptable for wall or counter



**Proved Rugged by Field and Laboratory Tests.** Professional mechanics across the nation job-tested the Proto Clik-Stop wrench. 98.1% acclaimed it a major improvement in adjustable wrench design.

In laboratory tests, the Golden Knurl was clicked through 1,969,640 positions with no appreciable wear. Try one yourself at your quality tool store.



2209 Santa Fe Ave., Los Angeles 54, Calif.  
583 Allen St., Jamestown, N. Y.  
P.O. Box 366, London, Ont., Canada

#### Trade Information

Merchandiser base is only 5" x 17". Holds 2 each of 5 sizes. One each additional 8" and 10" included as back-up stock. Retail value of tools \$38.76, subject to regular discount. No charge for merchandiser.

# Trends in Use of Selected Equipment on Passenger Cars

THE increasing popularity of "optional" or "special" equipment items on new passenger cars is shown in the accompanying tables. As compared with other

years, however, very few items which previously were optional have become standard. The comparisons below are given for 1956 and 1957.

## 1956 MODEL YEAR

Percentage, Factory Installations Only

	Ford	Lincoln	Merc.	Plymouth	Chrys.	De Soto	Dodge	Cad.	Olds.	Buick	Chev.	Pontiac	AMC	Stud.	Packard
Automatic Trans.	62.0	STD	88.8	61.5	99.4	98.6	88.8	STD	98.6	98.7	88.5	93.0	88.9	55.0	99.0
Standard Trans.	30.0	NA	9.1	34.0	0.6	0.8	9.7	NA	1.4	3.3	38.0	7.0	20.5	10.3	0.1
Overdrive Trans.	8.0	NA	3.1	3.7	NA	0.5	1.5	NA	NA	3.5	NA	18.5	34.7	0.9	
Power Brakes	4.0	98.5	38.7	5.6	73.4	82.7	15.2	STD	70.1	50.0	8.3	33.6	91.6	13.0	93.6
Power Steering	19.0	STD	28.5	6.4	87.4	73.2	22.0	STD	58.7	58.4	7.3	28.1	7.5	12.6	68.0
Power Seats	1.0	88.0	6.4	0.3	21.0	7.5	1.4	80.0	18.8	18.7	0.4	2.8	NA	2.1	30.3
Power Windows	1.0	88.0	4.8	0.4	19.3	5.6	1.3	80.0	17.8	14.8	0.5	2.7	1.0	3.2	27.0
Radios	85.0	99.0	85.0	38.8	85.8	68.3	44.1	95.0	90.7	89.8	88.5	88.5	55.0	43.5	92.0
Heaters	89.0	99.8	96.0	94.1	98.3	97.4	94.9	98.0	98.0	97.9	94.2	96.8	95.1	90.5	96.3
White Walls	50.0	88.8	78.9	46.8	88.8	78.2	53.0	88.0	88.0	83.1	40.6	89.1	54.0	62.4	85.7
Air Conditioning	1.0	18.3	1.1	0.2	7.3	2.3	0.7	25.0	4.7	3.6	0.9	2.4	6.7	2.5	4.3
Tinted Glass	22.0	94.0	52.6	19.6	82.1	82.4	21.9	93.0	44.1	88.8	16.2	26.3	39.7	28.0	54.5
Windshield Washers	43.0	STD	50.2	20.4	88.5	50.8	25.2	STD	78.0	77.4	24.0	28.2	23.0	21.8	STD
Backup Lights	38.0	STD	89.0	30.7	94.7	STD	52.8	STD	80.3	85.8	37.0	98.0	58.2	52.1	STD
V-8	89.0	STD	STD	65.0	STD	STD	86.8	STD	STD	STD	57.6	STD	13.2	71.0	STD

## 1957 MODEL YEAR

Percentage, Factory Installations Only

	Ford	Lincoln	Merc.	Plymouth	Chrys.	De Soto	Dodge	Cad.	Olds.	Buick	Chev.	Pontiac	AMC	Stud.	Packard
Automatic Trans.	71.4	STD	94.7	78.8	99.9	99.3	97.0	STD	98.9	98.0	88.0	96.0	88.0	60.0	58.7
Standard Trans.	23.2	NA	3.9	20.2	0.1	0.7	3.0	NA	1.1	2.0	31.6	4.0	22.0	14.9	
Overdrive Trans.	5.4	NA	1.4	1.2	NA	NA	NA	NA	NA	NA	2.4	NA	18.0	26.4	
Power Brakes	9.6	STD	48.8	12.2	83.7	89.0	28.0	STD	82.4	57.3	10.5	45.1	24.7	14.3	
Power Steering	27.0	STD	50.9	17.7	97.1	81.5	50.0	STD	77.3	83.0	15.6	41.0	23.0	20.5	
Power Seats	1.9	88.0	12.3	0.5	38.0	8.0	2.3	78.0	12.3	17.9	0.3	1.4	NA	2.0	
Power Windows	1.8	88.0	7.3	0.6	35.3	8.0	2.1	98.0	2.7	18.8	0.5	2.3	.004	2.1	
Radios	88.6	99.4	88.5	47.9	89.5	71.0	54.0	99.0	93.6	88.7	50.5	90.2	48.0	50.4	
Heaters	90.5	99.8	91.8	94.5	98.8	98.0	96.0	98.0	98.3	98.0	93.1	97.5	91.0	92.9	
White Walls	56.4	88.0	84.2	57.2	85.8	85.0	88.0	98.0	85.2	81.4	45.7	92.9	48.0	81.3	
Air Conditioning	0.5	22.0	5.3	1.8	14.1	5.0	2.8	32.0	9.9	6.3	1.1	3.9	6.0	37.0	
Tinted Glass	16.6	92.0	56.5	17.9	58.3	31.0	29.0	90.0	41.4	58.4	15.0	23.7	27.4	21.4	
Windshield Washers	37.5	STD	65.2	31.0	85.4	53.0	42.0	STD	79.5	78.0	NA	24.5	24.5	27.0	
Backup Lights	41.2	STD	98.2	42.8	100.0	98.0	88.0	STD	68.3	82.6	NA	54.8	49.7	41.2	
V-8	88.9	STD	STD	75.4	STD	STD	94.0	STD	STD	STD	63.5	STD	31.0	88.5	
Dual Headlamps	NA	98.0	32.0	NA	70.0	39.7	NA	NA	NA	NA	NA	NA	9.6	NA	

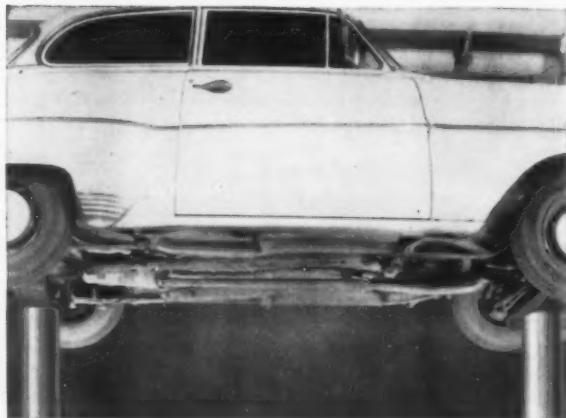
1958  
AGAIN PROVES  
WEAVER'S ABILITY  
to design LIFTS  
that do not  
become obsolete!

# The WEAVER

## safely and easily and light trucks — as



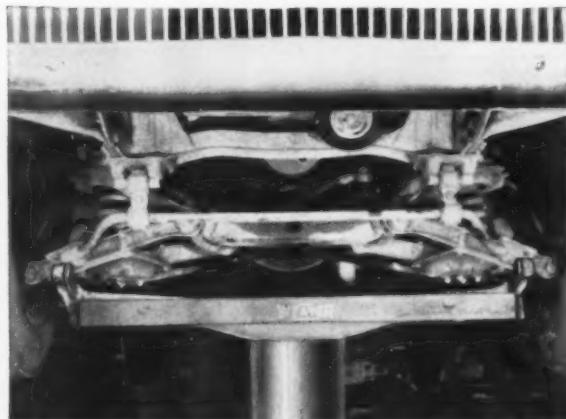
1958 EDELS is shown above raised on Model EC-102 Twin Post Lift.



1958 OPEL, (REKORD-CARAVAN) 100 inch WHEELBASE is easily handled on Model EC-102.



FRONT END of EDELS is properly supported on Twin Post with Weaver Adapters extended.



Same OPEL (which is being sold by Buick Dealers) is handled with Weaver standard Adapters retracted.

SINCE 1910 — THE MOST COMPLETE LINE IN THE FIELD!



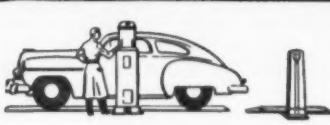
TWIN  
POST LIFTS



UNIT LIFT



HEADLIGHT TESTERS



SAFETY LANES



CAR WASHERS

# TWIN POST LIFT

## handles 1958 model cars— well as earlier model vehicles!

To you, as a buyer — and also from the standpoint of rendering profitable service — it should mean a lot to you to know that no new model car has ever obsoleted the Weaver Twin Post Lift . . . It handles all 1958 models — or older models — long, medium or short wheelbase.

This great *all-purpose lift* is *rail-less*, and provides unobstructed chassis accessibility — lifts cars at outer ends of lower control arms for completely relaxed front suspension and proper ball joint lubrication — the safe way to handle Air Suspension cars . . . Current model Weaver Twin Post Lifts, with standard adapters easily handle jobs that can *not* be raised safely on other make lifts.

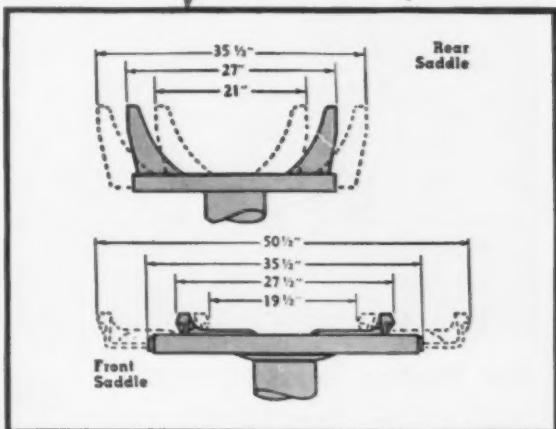
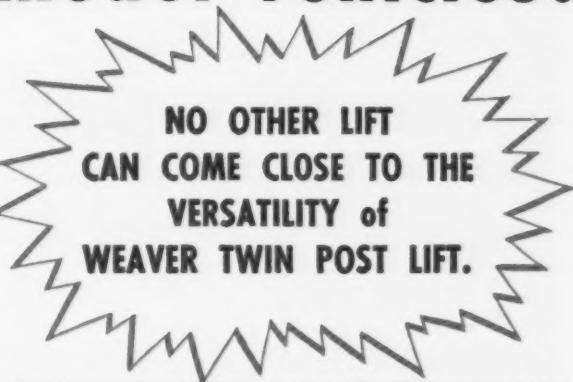
Because of its utility and anti-obsolete qualities, the Weaver Twin Post should be the **NUMBER ONE** lift for you.

IF YOU NOW HAVE Weaver Twin Post Lifts — you'll be glad to know that your lifts have not been made obsolete because of changes introduced in some 1958 cars and trucks . . . Special new adjustable saddles — or conversion packages — by Weaver will enable you to bring your equipment up-to-date.

The complete Weaver line of lifts includes Twin Post Lifts in 8 models . . . Triple Post Lifts . . . Single Post Roll-on and Freewheel type Lifts. Weaver also makes a "frame" type lift for those who choose a lift of very limited utility . . . For general service — you can't beat the Weaver Twin Post.

FOR DETAILS, ask your Weaver Jobber or write us for Bulletin MA-457.

WEAVER MANUFACTURING CO., SPRINGFIELD, ILL., U.S.A.



ADJUSTABLE FRONT and REAR SADDLE ADAPTERS are standard on EC-102 and EC-103 Twin Post Lifts. Illustration above shows range of Adapter adjustment. Adjustable Rear Adapter and Saddle Assembly available for early model Twin Post Lifts.

## WEAVER SERVICE EQUIPMENT



WHEEL  
BALANCING  
EQUIPMENT



AIR COMPRESSORS



JACKS



WHEEL DOLLIES



BUMPER LIFT JACK



WHEEL  
ALIGNMENT  
EQUIPMENT

Packard engineers have returned automatic transmission to all four models. Power brakes, with finned drums, have also been added as a standard item. Engineers claim the drums will virtually eliminate brake fade.

The new hardtop rests atop a 116.5-in. wheelbase, while the

sedan offers a 120.5-in. base. Both models are the same height (57.5-in.) and width (77-in.). The sedan, however, stretches four-in. longer or 213-in. Packard's eight-passenger station wagon, with an optional hidden third seat, is a compact 206-in. long. Its wheelbase measures

116-in; height, 61.5-in; and width, 77-in.

Packard engineers have installed a new system of dual springs. One set functions with normal loads, while the other is used with heavier loads or on rough surfaces.

Optional features include: power steering, power windows and seats; also twin traction, a non-slip differential for slick roads, and air conditioning.

**ACCURACY HERE...**  
*can save costly engine damage!*

INSTALL STEWART-WARNER  
*Universal Mounting Gauges*

**for trucks, busses, cars!**

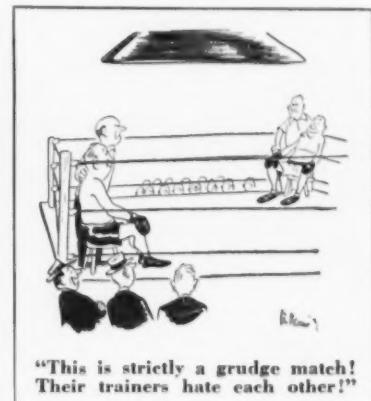
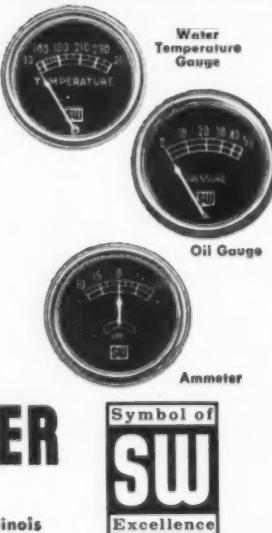
- Rugged vibration-proof mechanism!
- Dust-tight, water-proof, corrosion-resistant construction!
- Chrome bezel rolled over rubber gasket!
- Silicone damped pointers—no bounce or flutter!
- Ample safety factor—will not take a "set" when overloaded!

There is a famous-quality Stewart-Warner instrument or gauge for every automotive need—to give dependable warning indications before oil drains away, before coolant boils off or fuel runs out . . . before countless other engine troubles cause costly damage.

Call your jobber today, or write for free catalog!

**STEWART-WARNER**  
 Instrument Division

Dept. AD-28, 1840 Diversey Parkway, Chicago 14, Illinois



**Clayton Service  
 Program Report**

J. A. Cortright, vice president of Sales, Clayton Mfg. Co. recently commented about a special service policy inaugurated three years ago by Clayton.

According to Cortright the plan has proved quite successful over the many months it has been in operation.

Highlights of the plan are A) a series of repair kits; B) a program of ten year service guarantee. The latter is particularly striking, comments Cortright. It provides in the case of seriously damaged Clayton-Kerrick steam cleaners that "if all parts are present and if the machine is less than 10 years old, Clayton will offer a rebuilt cleaner of the same model guaranteed to be in perfect mechanical condition in exchange for the damaged cleaner and 50 per cent or less of the current price of the new machine."

## What tire's guarantee helps pull in Fat-Profit Sales?



**Answer: ARMSTRONG "SAFETY DISC" TIRES with the "Ounce of Prevention" feature customers can see!**

## LONGEST, STRONGEST GUARANTEE IN THE TIRE INDUSTRY—



**Part of the selling punch that  
only Armstrong Tires give you!**

Why sell tires that are "just tires"? Why compete on a price basis — that squeezes profits? Instead, sell Armstrongs. See why they make full-profit sales fast and easy:

### **1. GUARANTEE CLINCHES SALES**

Compare Armstrong's unconditional road hazard Lifetime Guarantee with *any* other! It's the "clincher" that makes customers say, "Put them on!" Get the Armstrong story. Start making *money* from tires!

### **2. SAFETY DISCS GIVE YOU AN 'EXCLUSIVE'**

Customers can *see* that Armstrong Tires offer them something special — patented, exclusive Safety Discs. In 10 seconds, a salesman can make the famous "fist" demonstration — *show* why Armstrongs grip the road to stop skids as no other tires can.

### **3. ADVERTISING BUILDS INTEREST**

In LIFE, POST . . . on TELEVISION, big-time Armstrong advertising makes the "fist" demonstration to millions — makes *your* selling easy.

## THE ARMSTRONG RUBBER CO.

Home Office,  
West Haven, Conn.

board chairman of Eastern Air Lines.

Tuesday morning, dealers feasted one of the auto industry's popular figures. NADA's "30-Year Club," composed of 30-year industry veterans, had breakfast in honor of William E. Holler, former vice president and general sales manager of the Chevrolet Division of General Motors. Mr. Holler, now retired and living in Mount Dora, Fla., discussed "The Automobile Dealer—Today, Yesterday and Tomorrow," as principal speaker at the 30-Year Club breakfast.

On Tuesday morning three distinguished speakers addressed a convention session devoted to trucks. Wallace B. Spielman, president of the J. B. E. Olson Corporation, N. Y., spoke on "Is Truck Selling a Sideshow, a Battle Royal, a Necessary Evil or a Real Business." He was followed by Dr. G. Herbert True, associate professor of marketing at Notre Dame with a talk on "You Make the Difference." After Dr. True's address, Arthur O. Dietz, president of the C.I.T. Financial Corporation regarded as one of the country's outstanding authorities on consumer credit, spoke on "A Realistic Look Ahead."

Tuesday afternoon marked a NADA Convention "first." That entire afternoon was set aside for "family type" make meetings. Five concurrent sessions were held, during which dealers from each of the five manufacturing corporations met with officials of their line.

Moderators for the sessions were as follows: American Motors—Bill Hermann, American Motors member, Industry Relations Committee; Chrysler—Charles C. Freed, NADA Past President; Ford—Foster W. Talbott, Ford member, Industry Relations Committee; General Motors—Carl E. Fribley, NADA

**Past President, and Studebaker-Packard Byron C. Hawn, Studebaker-Packard member, Industry Relations Committee.**

Wednesday afternoon Adm. Frederick J. Bell, executive vice president of NADA, moderated a discussion entitled "The Customer Speaks." Participants were Philip Talbott, president of the U. S. Chamber of Commerce, Washington, D. C.; Ray Farabee, president of the National Students Association, Phila.; and Mrs. A. N. Satterlee, chairman, Consumer Division, General Federation of Women's Clubs.

Space does not permit incorporation of the many highlights of the various program speakers. Excerpts, however, of two representative major talks follows:

## AFTER THIRTY YEARS, A PROBLEM BECOMES A PROFIT

By Charles C. Freed, president Freed Motor Co., Salt Lake City, Utah:

Why have I said "After Thirty Years, A Problem Becomes a Profit? Only because I started in this business thirty-one years ago and the part of the business I disliked was our used cars—those Moons, Dianas, Stars, Durants and some others that glared back at me night and day from their more-or-less permanent berths on our used car lot.

I remember very well my banker telling me to watch out for those used cars—they were dangerous—they wouldn't sell because the auto industry had probably reached a saturation point.

Today, with thirty years and thousands of used car sales behind me, I'd like to tell my banker just how wrong he was . . .

Today I love used cars, and

that saturation point for all kinds of cars, new and old, is farther away now than ever before.

Most important to all of us is that in this new, more competitive era our Used Car Department is second only to our New Car Department in producing *Profit* month in and month out. Our Used Car Manager is today the proudest member of our management team because he is responsible for producing sales with a profit—of running a profitable business of his own—instead of just a necessary evil always in the red.

Our Used Car Department is operated separately from other departments, just as though it were another corporation.

A few years ago we conducted a survey among used car buyers, asking why they bought from us. We had them check a card showing certain items and left a space for remarks. The results were startling! Their first reason for buying, in their own words, was "Neat and dignified appearance of your used car lot"; second—"Signs on your lot"; third—"Classified advertising"; and, fourth, "One of your customers recommended your place."

Since then we have further improved our used car operation, giving it an atmosphere of dignity and reliability rather than the appearance of a sideshow in a circus. It has paid off for us and I think it will for you. We pay close attention to good principles of display.

Used cars, like other merchandise, are half sold if well displayed. Consequently, used car lots should be designed as instruments of effective display rather than mere parking lots. The lot should be immaculately clean with substantial, dignified signs containing only those statements that you're willing to stand behind.

We use and recommend a sound, long-range—not hit-or-

miss—customer used car warranty program—one which will insure you of year after year repeat buyers. It might be a one-year warranty, a money-back guarantee or even a "fifty-fifty" 30-day warranty, but most important: something that is sincere, that you believe in, and is yours and is one you can and will stand back of . . .

**Remarks by Mr. Dean C. Chaffin, 1958 NADA President:**

It is a solemn moment in the experience of any man assuming the leadership of an organization such as ours, one of the largest and most successful associations for the small businessman in the land and in numerous ways one of the most significant.

I am humbly grateful for the signal honor you have conferred on me as the thirty-sixth President of NADA in the forty-first year of its history. At the same time I am deeply conscious of the responsibilities, inherent and implied, and especially in view of the critical conditions under which our industry is currently operating . . .

Borrowing from the past, let us unify our forces for the year upcoming; let us be strong in number and determined in objective. Ours is a business of service to the motoring public. What we do must be dedicated to the continuation of this principle . . .

There are no qualifications as to size, locale, financial standing or politics. There is only one requisite—that you be ethical quality-minded members of NADA. With your support and with the help of our very fine staff in Washington, we will put our combined shoulders to the wheel in the interest of our dealer membership.

This is a good business—a proud business. The automobile retailing industry volume last year approximated thirty-two billion dollars, second only to the

dispensers of food and beverages. One out of every six retailers is in some facet of the automotive industry and more than 750,000 individuals earn their livelihood from our operations.

We engage in this business by choice; let's be happy and optimistic about it.

We owe it to ourselves, to the men and women associated with us in our industry, to our manufacturers, to conduct our affairs in the manner and with the attitude and spirit which will earn the respect and good will of the public we serve.

A fugitive scientist from a horror picture dreamed up a serum that would bring life to inanimate objects. He first tried it on the statue of a great general in Central Park. The statue gave a quiver and instantly later came to life and climbed down from his pedestal. The scientist was overjoyed.

"I gave you life" he exalted, "Now tell me, general, what is the first thing you are going to do?"

"That's easy!" rasped the general, ripping a gun from his holster.

"I'm going to shoot about two million pigeons."

## Ford Announces New Division

A newly formed and expanded division of Ford Motor Company—the M-E-L Division—has been assigned responsibility of the company's products in the medium-price, luxury and imported car markets, Henry Ford II, president, announced.

James J. Nance has been appointed vice-president and general manager of the new M-E-L Division. He will have charge of four of the company's U.S.-made car lines and of the marketing of the English Ford line. Mr. Nance was a vice president and general manager of the former Lincoln and Mercury Division.

U.S.-made products of the new division are the Continental, the Lincoln, the Mercury and the Edsel. The English Ford line—including the Anglia, Prefect, Consul, Zephyr and Zodiac pas-

senger cars and Thames Van trucks—produced by Ford Motor Company, Ltd., of Dagenham, England, will be imported and marketed by the Division.

## Training School Draws Students

Students who traveled thousands of miles to attend the DeVilbiss spray training school were among the more than 1,500 who were instructed in classes held more than once a week during 1957.

Students traveling the greatest distance were David Halse and Dan Valjoen, of British Agencies Pty. Ltd., Johannesburg, S. Africa, whose prime reason for making the trip was to attend the DeVilbiss school. Other students came from Germany, Canada and Puerto Rico as well as all parts of this country.

In the well over 50 schools held at the plant and in the field, industrial finishers, decorating and maintenance painters, automobile refinishers, paint and equipment salesmen, even vocational teachers, learned the latest techniques of spray painting and finishing. Also how to use and service the latest in spray equipment.



B-E-A-M Progress was explained to Moog representatives December 12 at the Company's annual sales meeting in St. Louis by (left to right) James B. Bushyhead, vice-president of sales; Claude Suttles, sales manager; Hubert P. Moog, chairman of the board; and Hubert C. Moog, president.

# "I wanted security, and got it with Texaco,"

says Dan Couget, money-making Texaco Dealer in New Orleans, La.

**"It happened this way:** Seventeen years ago I made the most important decision in my life," says Dan Couget, operator of a highly successful Texaco station.

"I wanted to get my own business, and I asked Texaco for a dealership. I had the feeling that working for yourself sure beats working for a boss.

"It has paid off for me, just as it has for many other Texaco Dealers I know. Texaco helps you get started and then treats you right. Then we have another edge. There are 38,000 Texaco Dealers over the country. When their customers travel, they stop at Texaco stations along the way. That's why I make extra take-home money from out-of-town motorists."

**PROSPEROUS BOSS:** Dan Couget, coming home for lunch from his Texaco Service Station, greets his wife and son.





"**THIS IS THE LIFE,**" says Dan, shown relaxing in his comfortable home. Starting from scratch as a Texaco Dealer in 1941, today he has a fine car, a house and money in the bank. He plans to send his son to college.

"But the best part of it is the satisfaction of working for yourself — being your own boss and knowing you have a solid future."



**KEY TO PROFITS:** "I found that getting a Texaco dealership, with top quality products to sell, was most important to my success," says Dan. "Also the prestige of the Texaco name in all 48 states. From there on, it was a matter of giving good service and carrying out the sound management policies worked out by the Texaco people. Any man who wants to have his own business and real security, ought to investigate the advantages of becoming a Texaco Dealer. I'm mighty glad I did."



## 6 reasons why you can make money as a Texaco Dealer:

**The best** petroleum products, known and accepted by car owners in all 48 states. Continuous research and development insure that TEXACO will always have outstanding products.

**The best** and biggest national advertising program . . . constantly *selling* TEXACO Dealers to car owners everywhere.

**The best** point-of-sale promotion material to help bring customers in and bring them back! **The best** customer credit card—in fact, the *only* petroleum credit card honored under one sign in all 48 states . . . and in Canada, too. **The best** retailer policy—

TEXACO doesn't compete with its dealers . . . cooperates with them in the marketing of nationally-advertised and accepted TBA products. **The best** opportunity to cash in on "touring" business all year—because TEXACO customers at home like to stop at TEXACO stations when on the road. This means you have 38,000 other TEXACO Dealers helping you.



THE TEXAS COMPANY

**WRITE OR PHONE TODAY** if you'd like to be your own boss—a TEXACO Dealer. Let's talk it over. No obligation. Get in touch with the Texaco Division Office nearest you.

**DIVISION OFFICES:** Atlanta, Ga.; Boston 16, Mass.; Buffalo 9, N. Y.; Butte, Mont.; Chicago 4, Ill.; Dallas 2, Tex.; Denver 3, Colo.; Houston 2, Tex.; Indianapolis 1, Ind.; Los Angeles 15, Calif.; Minneapolis 3, Minn.; New Orleans 16, La.; New York 17, N. Y.; Norfolk 2, Va.; Seattle 1, Wash.

ating economy is being stressed and this means smaller engines with emphasis on fuel economy rather than power. Is the next step a smaller displacement, lighter-weight engine? Or is it time for an all-aluminum model? Currently this is a controversial subject.

Consider the problem of fuel injection. Strenuous efforts are underway to improve performance and reduce cost. Only parts makers know, within a reasonable assumption, when these objectives can be attained. Surely no one would say they can't or won't be accomplished. There is

some feeling that the most effective way to use fuel injection is with a small displacement engine. This will enable the system to take advantage of lean mixtures and increased mechanical octanes. It will also allow it to increase torque. It is early, however, to say that fuel injection will or will not displace the carburetor.

## Rear Engine Location

Another principle concerns locating the engine in the rear. If this were accomplished, it would solve many problems. It would, for one, eliminate the tunnel over the transmission. This would add interior room and make possible full thickness seat cushions. Another feature could result from puncture-proof tires. If these are adopted it means the elimination of the spare. This would provide luggage space at the front end of a rear-engine car.

But what assets there are appear to be outweighed by engineering problems. One of the more important is an unfavorable weight distribution of a large car with a big engine. This can be overcome with a smaller car and a corresponding engine. Some engineers claim that current rear-engine cars have a balance problem. Of course, the biggest problem of a severe chassis change will involve new tooling. This will be expensive and could only be undertaken when launching a new line.

Unitized body structure has received much attention, particularly since its adoption by Lincoln and Thunderbird. It is a fact that mass producers cannot afford the shift because of the mess it would make of assembly facilities. Why could Lincoln do it? They took advantage of a unique decision. Management decided to build a new car and, simultaneously, an entirely new plant. Hence, the decision produced a special plant and a special product. And neither Lincoln

(Continued on page 122)



G-38

R-16

## assuring you complete coverage

Because of our original equipment experience, we can assure you a full replacement cap line.

Stant maintains that tradition with the new R-16 for air-conditioned Chrysler family, Hudson, Nash . . . the new *non-vented* G-38 and G-81 for 1958 Chevrolets and Pontiacs . . . and other new caps.

Write for catalog to  
STANT MANUFACTURING CO., INC.  
Connersville, Indiana,  
. . . naming your jobber.

used on America's Finest Automobiles as  
Standard Equipment for a generation





*"Since De Soto introduced the Firesweep,*

# **MY PROFITS ARE UP 42%"**

—reports H. E. Baher, President, H. E. Baher, Inc., Alhambra, California



"The Firesweep has opened a whole new volume market for our dealership," says Mr. Baher. "We're making many more conquest sales, especially to people moving from low-priced cars to the lower-medium-priced Firesweep."

"The Firesweep line includes every body style, which, together with very competitive prices, has helped us go after more fleet business. Just recently we delivered a fleet of new Firesweep 4-door sedans to the city of Alhambra."

"By bringing in more traffic, the Firesweep has made our salesmen's floor time much more productive, too. And its combination of style, features and price has turned many would-be 'lookers' into buyers. This car is hard to resist!"

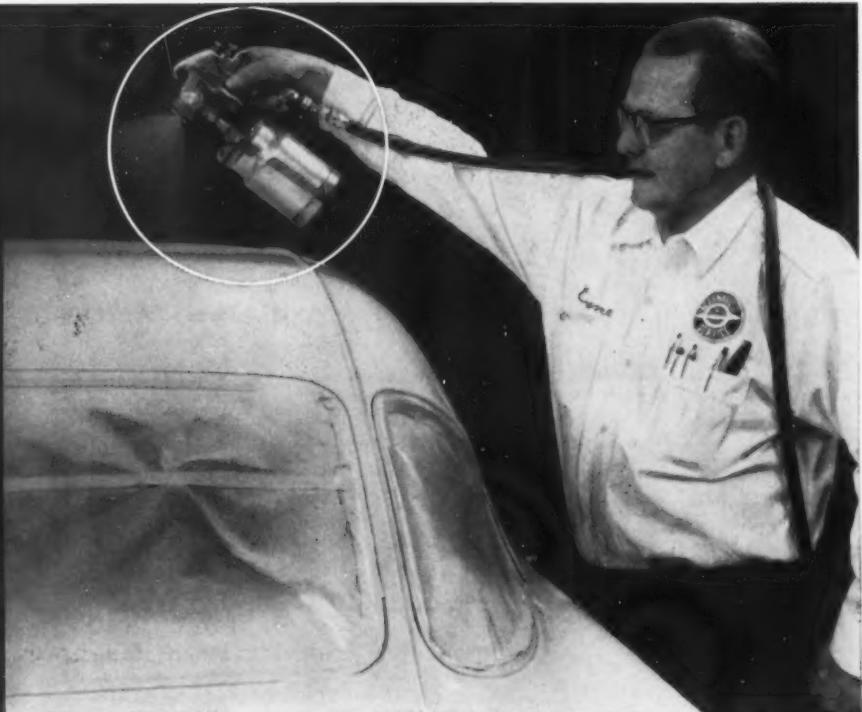
H. E. Baher and hundreds of other dealers from coast to coast have discovered the tremendous profit-through-volume opportunity offered by the competitively-priced De Soto Firesweep—a fast-moving car backed by a continuing, retail-slanted advertising and sales promotion effort—one more reason why in '58, more than ever . . .

**it pays  
to be a  
DE SOTO dealer!**

# NOW! THE FIRST MAJOR CAR-PAINTING

## OLD WAY

Cup-gun combination filled with paint puts over 5 lbs. dead weight on the painter's outstretched arm.



**New Ease and Flexibility**—Now, reaching across broad flat hoods, over sweeping contours, under rocker panels, and into cramped corners is free and easy with the DeVilbiss Remote-Cup Outfit. Correct gun angle can be maintained on all these surfaces without dripping paint from the cup vent hole.

**Less Fatigue**—Weight at the gun is reduced 60%. With the cup and paint supply removed to the idle hand, the spray hand is free to reach arm's length across the broad horizontal surfaces and maneuver over the entire car without fatigue or cramped muscles.

**More Beautiful Finishes**—Exclusive, five-way spray control makes possible the ideal balancing of fluid and air-flow for each type of paint to eliminate orange peel and dry spray; assures better flowout; prevents sandy finish from dry

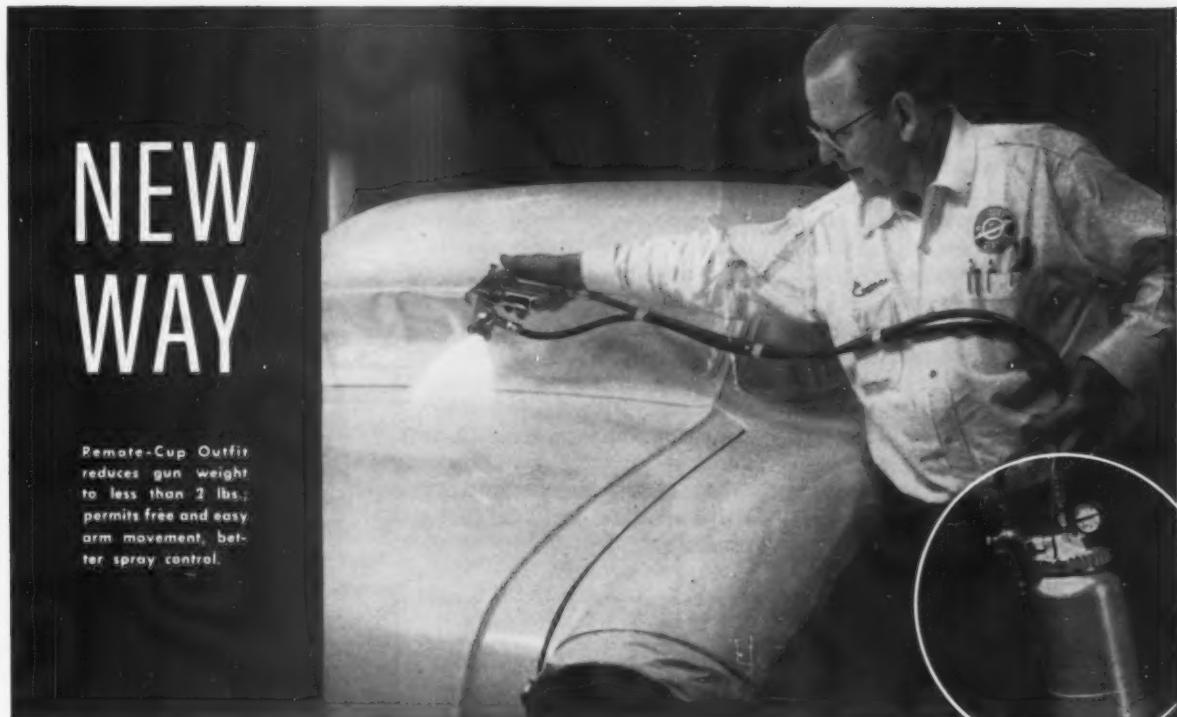
overspray. For the first time, lacquers, enamels, acrylics, primers and surfacers can be sprayed under all conditions with just one gun.

**Paint Savings**—Overspray is reduced three ways: (1) correct balance of fluid and air-flow in all pressure ranges, (2) elimination of awkward gun angles to avoid spray rebound, (3) greater control of fluid flow and atomization for ideal paint break-up in extra-wide, and narrowed-down spray patterns.

**Greater Productivity**—Remote-Cup Method provides paint feed under pressure with full control of flow rate for fast, full coverage. Large areas can be covered nonstop because of the Remote Cup's greater capacity.

Call your nearest distributor or jobber today for all the facts and a demonstration.

# ADVANCE IN EQUIPMENT IN OVER A DECADE



## NEW WAY

Remote-Cup Outfit  
reduces gun weight  
to less than 2 lbs.;  
permits free and easy  
arm movement, bet-  
ter spray control.

**DeVilbiss REMOTE-CUP METHOD gives  
new ease and speed to painting...  
higher quality results with all materials**



THE DEVILBISS COMPANY • Toledo 1, Ohio  
London, England • Barrie, Ontario • Branch Offices in Principal Cities



New DeVilbiss Model P-KB-602 Remote-Cup Outfit

# Air Conditioning . . . . . Continued from page 47

Several years ago in the Southwest, particularly Texas and Oklahoma, starting as an installing dealer did present its problems. For even though this area was the birthplace of automobile air conditioning, there were only a few manufacturers. Moreover, they had little trained service personnel in the field. The units were sometimes incomplete, and the installation took a lot of time.

However, the manufacturers did something about it. They held factory supervised service schools, some at factory expense even including meals and lodging.

The units were streamlined and condensed to a package that was compact, easy to install, complete in every detail with adequate instructions.

Let's take an example of one 2-day service school in Texas: The average dealer who attended this school sells approximately 50 units per season; many as high as 350 units. These units sold for approximately \$340 for the dash model installed, slightly higher in the North, East and far West. The average dealer cost of the unit installed was \$260, leaving a gross margin of \$80 per unit. Since the average dealer sales were 50 units, this means there was an additional gross income to the installing dealer in automobile air conditioning of \$4,000.

This profit was made in a 120 day period between May and August.

Naturally, those dealers who enjoyed greater success as far as the sale of units was concerned made a proportionate larger gross profit. For example, the dealer who sold 350 units made a gross profit of \$28,000. Not bad for 120 days work.

## Automobile Air Conditioner

There is nothing greatly com-

plicated nor mysterious about the installation, operation or theory of an automobile air conditioner.

Any successful business man with pride of workmanship and desire to learn should be able to become a competent automobile air conditioning installer. And with the aids given the dealer from most factories, he can become a competent service man.

The automobile air conditioner is much less complicated and requires fewer special tools for service than automatic transmissions. Automotive air conditioning requires only a few more tools than a generator repair shop.

One thing that is important if you take up air conditioning installations and service: Cleanliness is mandatory. Further, following the instructions of the unit's manufacturer in installation is most important.

First we will consider the thermostatically-controlled solenoid by-pass valve. This was one of the earliest means for preventing over-refrigeration; icing of the coils. It is merely a means for making the compressor "chase its tail" around a short Freon circuit, by-passing the evaporator coils when cooling isn't needed.

The solenoid valve is wired to a thermostat with its sensing element located at the evaporator. When icing occurs, the thermostat opens the valve. The Freon by-passes the evaporator until the ice melts and thermostat signals the valve to close and start sending Freon back around again.

A more modern system of control is the magnetic clutch control system. It is a means for automatically connecting and disconnecting the compressor in response to thermostat setting. The compressor may be disengaged by the over-riding switch usually placed on the dashboard when cooling is not required.

The magnetic clutch is wired to the thermostat with its sensing element located at the evaporator. When icing occurs, the thermostat opens the circuit or disengages the clutch. This stops the compressor until the ice melts in the evaporator and the thermostat would then close the circuit which engages the clutch.

There is a third control system designed for controlling Freon flow in a car air conditioner. It is called the RoboTrol valve. This valve controls the rate of Freon flow to produce the maximum efficiency of frost-point cooling at the evaporator coils at all times.

Here are some of the factors, which as they change, require a corresponding change in Freon flow to maintain the right refrigerant supply at the evaporator coils.

- 1) The speed of the car's engine and therefore of the compressor.
- 2) The atmospheric



Most automotive servicemen have an idea of the basic components of an air conditioner system for cars. The compressor, the condenser, the evaporator unit, and the controls for the system.

With regard to controls, there are at least three basic types of Freon control among independent manufacturers of field-installed air conditioners.

temperature and pressure and relative humidity. 3) Variations in sunlight and shade. 4) The speed of the car as it affects the ram air at the condenser.

#### Not a By-Pass Valve

This valve is not a by-pass. It is a modulating valve mounted in the suction line next to the compressor. It is responsive both to changes in Freon pressure at the evaporator and to rate of Freon flow into the compressor. It helps the compressor to use the minimum horsepower required to do the cooling job needed.

To summarize the automobile air conditioning market: There are relatively few fields in the country that offer as much opportunity. You have a vastly expanding market. An even greater reserve market potential.

And when you make the step to get into this field, make sure of getting factory assistance, service training, and providing for adequate warranty protection.

Do not delay too long. Get your men trained before the season is upon you. As you read this article, some manufacturers have already begun their 1958 services courses. Be equipped with training and inventory and ready to go by May 1st at the very latest!

---

*After a very trying day at the office, the husband was enjoying his pipe and reading the evening paper. His wife, who was working on a crossword puzzle, suddenly called out, "John, what is a female sheep?"*

*"Ewe," replied her husband . . . And that's how the fight began.*

*A near-sighted man rounded a downtown corner as a large dog coming from the opposite direction bumped into him and sent him sprawling. As he was getting up one of those small sport cars of foreign origin hit him from the other side and knocked him flat. A good samaritan rushed over and asked if he was hurt. "I don't think so," said the near-sighted one. "the dog didn't hurt me a bit, but that tin can tied to his tail nearly finished me."*

## Shop Spotting Stimulates Sales

By JOHN H. LANDER, President, Lander Motors, Inc., Atlanta, Ga. [from an address before the recent NADA Convention]:

"They will survive who serve best." I don't remember when this was said, but it could well apply to the automobile dealers of America in 1958. As a matter of fact, when our convention committee, of which I am a member, was searching for a theme slogan, I suggested "To Survive — Sell and Serve."

The art of selling must be revived in all dealer departments. Those who seriously practice and insist on salesmanship as an essential of all employees will be rewarded. Those dealers who fail to recognize the importance of salesmanship and of rendering real service to their owners and customers in the operation of their retail dealerships will surely go out of business.

Salesmanship in a shop is even more essential than in the showroom. To begin with, you have an involuntary customer who is definitely unhappy about bringing his car to your shop. Your shop personnel should be able to make him happy about his visit to your establishment, should sell him on spending more money than he planned to, and should make him so like your place that he will plan to buy his future cars from you!

#### Lack of Sales Effort

But—what is the true story of the shops of America today? Surveys made by NADA and other organizations interested in shop operations have consistently disclosed great inefficiency in most shops and a sad lack of sales effort on the part of most shop people surveyed. They were

missing in their desire or effort to sell the "needed services."

Can this failing be corrected? Can selling really accomplish anything in a shop?

Sure it can—and I want to tell you about ways and means to do a "spot selling" job in your shop. And I'm telling you about things we have proved in my own shop in Atlanta, Georgia. I know they work because in the 15 years since I've operated this dealership, our customer labor volume has increased from an average of \$5,000 per month to an average of almost \$40,000, or eight times as much! That didn't just happen!

How can you start? First by training all service personnel to SELL what is needed on each car that comes into your place. Teach them, all of them, to find out what is needed through "visual inspection," commonly known in Atlanta as "spotting." Everyone who comes in contact with the car can "spot" items which are giving or will give trouble.

This "spotting" should begin with the person who greets the customer and writes up the repair order. In my shop we call them service advisors and I have eight of them. In a small shop it would be the shop foreman. He should begin his inspection by looking at the door jamb sticker and odometer to determine the opportunity to sell various "lube" operations.

Then he gives it the "walk around" inspection, with the owner when possible. He will check for worn tires, steering misalignment, bent sheet metal, chipped paint, and other body troubles. He should quickly check under the hood, looking at belts, battery connections, air cleaner, ignition units, carburetor, etc.

Our lube men and all mechanics are interested in "spotting" the car while it's in their stall because they get paid 5 per cent for any additional services sold

*(Continued on page 126)*

## Foreign Cars . . . . . Continued from page 116

or Thunderbird require outside assembly plants. In both cases, the plant at Wixom can satisfy the market.

### Brake Problem

Easily the biggest problem concerns the brake system. There have been no radical

brake changes for some time. The general swing to 14-in. tires created a brake crisis. In fact, Buick and Cadillac retained 15-in. tires with Buick employing aluminum brake drums at the front for cooling. How the manufacturers can make another change, this time to 13-in.

wheels, is a question.

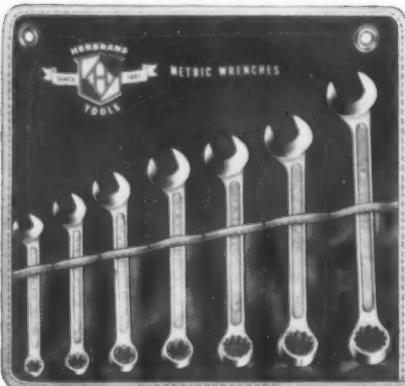
Returning to small cars, there is a curious psychology among foreign car exponents. For example, a stripped Ford, Plymouth or Chevrolet can be purchased for nearly the price of the foreign car. But the people who look at American cars demand power steering, automatic transmissions and power brakes. Yet they will unquestionably buy the foreign cars minus these features. And apparently they ignore this when comparing prices.

Ford and General Motors are in an excellent position to compete with foreign models, since they have family sources in Europe that produce them. But only if the market is promising of big numbers will these producers consider new facilities, either in Europe or the USA. For the moment it is time for watchful waiting. With today's costs, no one can afford to invest in the engineering and manufacture of an American small car unless there is sufficient volume.

**Herbrand**

tool-of-the-month... a new combination metric wrench set

SET NO. 1290 MR

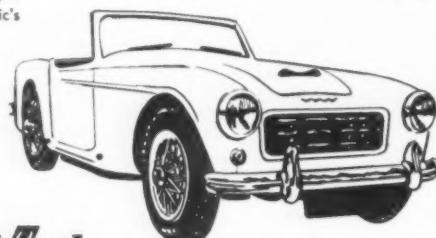


This handy set solves the problems of servicing foreign-make cars. It includes the seven most popular size metric wrenches. They're of highest quality alloy steel with 6 and 12 point precision-machined openings—the right tools for the job.

A complete line of metric wrenches and sockets are now in production covering the most popular type and sizes necessary for complete foreign and sports car overhaul and repair.

Write for new catalog page 9-25.

1209M—9MM size 6 point. 1210M—10MM size 6 point. 1211M—11MM size 6 point. 1212M—12MM size 6 point. 1214M—14MM size 12 point. 1217M—17MM size 12 point. 1219M—19MM size 12 point. Mechanic's Net—\$12.75 per set.



**Herbrand Tools** HERBRAND DIVISION

THE BINGHAM-HERBRAND CORPORATION, FREMONT, OHIO

The man whose aim is good in this life may miss fire in the next.



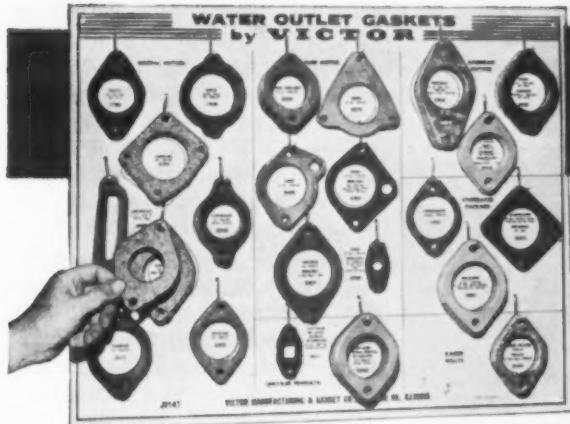
Gary Blythe, a talented Waldron, Ark. high school senior, grabbed first prize in the Rochester Carburetor Training Center Class at Oklahoma City this summer. He later finished third in a Delco-Remy course. Young Blythe is pointing for Oklahoma University and will use the training to finance his education. On the left is Hugh Swofford, a salesman for The Automotive Inc.



## Your shop needs these VICTOR Gasket Assortments Daily!

These assortments of quickly identifiable gaskets put at your shopmen's finger tips any gasket they need.

The result is, jobs move out of the shop faster; customers get better service, and you make more money.



### VICTOR WATER OUTLET GASKET ASSORTMENT AND DISPLAY BOARD

- For service on popular cars up to and including 1957
- Includes gaskets for water outlets, thermostat housings, thermostats, and water by-passes
- Gaskets grouped by car makes
- Identified on board by car, year, model and *Victor number*
- Outline of gasket printed on board—makes re-ordering easy
- Display board, 25" x 20", made of durable hardboard
- Chrome-plated hooks (23) included with board

#### Order Water Outlet Gasket Assortment and Board by These Numbers

*Large assortment*—JV137F—260 gaskets—23 varieties. *Smaller assortment*—JV138E—120 gaskets—12 varieties—no "dogs."

Supplied in cartons without board. Be sure to order Display Board.

*Display board only*—JV147—including 23 hooks.

### VICTOR EXHAUST SYSTEM GASKET ASSORTMENT AND DISPLAY BOARD

- Complete assortment for popular cars
- Includes gaskets for muffler, exhaust and tailpipe installations
- Outline of gaskets printed on board
- Gaskets grouped by car makes
- Identified on board by car, year, model and *Victor number*
- Display board, 25" x 20", made of durable hardboard
- Chrome-plated hooks (31) supplied with each board—including 4 extra long hooks for collar-type gaskets

#### Order Exhaust System Gasket Assortment by These Numbers

*Large assortment*—JV481—193 gaskets—no shelf warmers. 31 most used varieties.

Supplied in cartons without board. Be sure to order Display Board.

*Display board only*—JV480—and including 31 hooks.



Order from your local Victor Jobber

Victor Mfg. & Gasket Co., P. O. Box 1333, Chicago 90, Ill.

# VICTOR

Sealing Products Exclusively

## OIL SEALS • GASKETS • PACKINGS

The 100% Coverage Line . . . for Cars, Trucks, Tractors, Stationary Engines

job on his '56 Olds.

Now, Bill does lose a few jobs to cut rate or volume paint shops. But, Bill knows by now he couldn't get all the paint jobs in Albuquerque, if he had the capacity to turn them out. So he is satisfied to operate at about 90 percent capacity.

Yes, Bill does all the internal paint work for the dealership.

Bill refuses—and isn't pressured into trying to compete with cut rate paint shops. His come-backs would put him out of business. And he knows it.

Naturally, Bill couldn't have been in this business all these

years and not picked up some of the so-called short-cuts. Sure, he could save his scraps, mix them up to some off-beat color and spray a customer's car with it.

This is being done, and customers keep coming to Bill for the oddest color match-jobs imaginable. The shop doing the original job couldn't bother to match the color caused by a scratch or a scrape. This usually cures the customer from patronizing the cut rate shop again.

Bill prefers to buy his paint through a local distributor, getting standardized colors in the quantity needed for each job.

With his set-up, Bill could turn out 7 complete paint jobs a day. That is the capacity of his bake oven. But Bill will schedule jobs ahead, if at all possible, so that he can turn out 4 jobs a day. This allows him to leave the cars in the oven until they are completely dry. And the completed job is just that much better.

**FIRM FOUNDATION**  
for Better Brakes

**EIS**

**EIS**

You will find, like many other Servicemen and Jobbers, that EIS is a firm foundation for a better reputation and a better brake business. Your first return will be a higher net profit—your second, a larger volume—your third, a satisfied customer.

EIS Brake Parts represent a long experience in manufacturing to the stringent requirements of the replacement market. EIS Brake Parts provide the solid foundation you need to insure your brake work. On ALL your jobs, use the advantages of this fine Brake Parts Line! It's like money in the bank!

**THE Comprehensive BRAKE PARTS LINE**

WRITE FOR CATALOG  
**EIS AUTOMOTIVE CORP., MIDDLETOWN, CONN.**

*The drunk staggered from deck to stateroom, sat down, and peered through the porthole the entire afternoon. Finally he got up, turned his back, and mumbled, "What a lousy television show."*

## Credit Co. Elects Senior Officers

Edmund L. Grimes, Chairman of the Board of Commercial Credit Company, announced the election of the senior officers of Commercial Credit Corporation, its principal finance subsidiary.

Thomas A. Duncan was elected President; Samuel M. Chesney, James W. Newman and James P. Taylor were elected Executive Vice Presidents.

Michael V. Kane, Everett W. Sara and Michael Sheehan were elected Senior Vice Presidents. In addition, Walter Browning, Thomas W. Church, Elmer L. Chesney, Murray M. Hotchkiss, Donald S. Jones and Herman Staton were re-elected Senior Vice Presidents.

# Spark Plugs . . . . .

Continued from page 45

Inefficient engine cooling, improper ignition timing, the wrong type of fuel or loose spark plugs can cause general overheating. A normal engine where regular or unleaded gasolines have been used is usually identified by a rust-brown to grayish-tan powdery deposit and minor electrode erosion indicating proper ignition and combustion conditions.

Where highly leaded gasolines have been used they are usually identified by white powdery deposits. If the spark plugs are cleaned at recommended intervals and normal service conditions are encountered, these deposits have little effect on plug performance. However, prolonged high speed, high load operation will fuse these deposits to form a yellowish glaze. At high temperatures this glaze may be conductive. Result: misfiring and fouling.

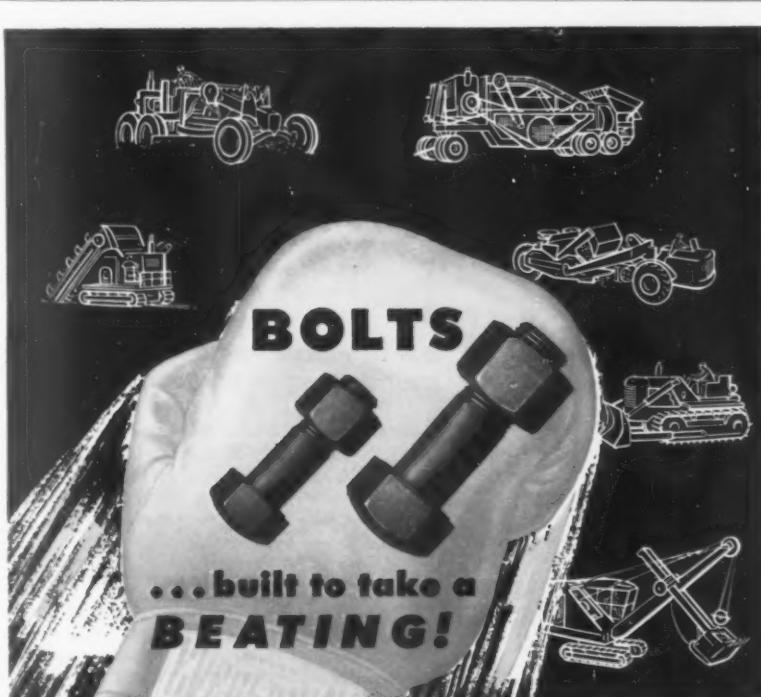
Plugs should be cleaned on a sand blaster following the manufacturer's instructions. Remove carbon and other deposits from the threads with a stiff wire brush. These threads are the means of carrying the heat away from the plug. Any deposits will retard the heat flow from the plug to the cylinder head causing the spark plug overheating and pre-ignition.

Clean the electrode surface with a small file. Dress the electrodes to secure flat parallel surfaces on both the center and side electrode. Do not file the ground electrode too thin as pre-ignition may result. After cleaning, examine the plugs carefully for cracked or broken insulators, badly pitted electrodes, or other signs. Set the spark plugs to the recommended gap by bending the ground electrode. Then test the plugs on a testing machine. Compare the sparking efficiency of the cleaned and regapped plug with a new plug.

Replace the plug if it fails to meet requirements. Test the plugs for compression leakage at the insulator seal. Apply a coating of oil to the shoulder of the plug where the insulator projects through the shell and to the top of the plug where the center electrode and terminal

project from the insulator. Place the plug under pressure. Leakage is indicated by air bubbling through the oil. If the test indicates compression leakage, replace the plug. If the plug is satisfactory wipe it clean.

Clean the area around the spark plug port to insure proper seating of the plug. Install the plugs, then tighten each plug to 15 to 20 ft. pounds torque.



## Tractor Bolts with Induction-Hardened Heads

Here are key strong points in America's gigantic highway building program.

Lamson & Sessions Tractor Bolts and Hi Nuts have teamed up for 22 years to keep the "work-horses" of the earth-moving equipment rolling. Tractors, bulldozers, scrapers, power shovels and other heavy equipment need the heat-treated, induction-hardened strength of Lamson Tractor

Bolt assemblies to help accomplish the toughest "face-lifting" job in our history.

So before breakdowns occur forward-looking contractors will have a ready supply of Lamson & Sessions Tractor Bolts and Hi Nuts available. Leading automotive distributors have them on hand—or write the factory direct for the name of your nearest distributor. Use the handy coupon.

**The LAMSON &  
SESSIONS Co.**  
WORLD'S LARGEST MANUFACTURER  
OF AUTOMOTIVE FASTENERS

Please send me more information on Lamson Tractor Bolts and Hi Nuts.

Name \_\_\_\_\_

Company \_\_\_\_\_

St. & No. \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

Jobber    Contractor    Other

The Lamson & Sessions Company  
5000 Tiedemann Road  
Cleveland 9, Ohio

Plants at Cleveland and Kent, Ohio  
Birmingham • Chicago

which were not listed on the original repair order. We've made spotters out of all of them with this simple way of rewarding those who sell.

For example, on all brake adjustment jobs, when the odometer reads 10,000 or more miles, our mechanic "pulls" a wheel

for "spotting." It's surprising how many such small jobs will turn into a \$50 to \$60 brake system overhaul. Recently that 5 per cent turned a foot brake adjustment on a heavy duty truck into a complete king pin and bushing job, complete steering overhaul, plus a clutch job

amounting to over \$100! It takes just a little incentive to make a good "spotter."

## Put on the Lift

Our quick service mechanic always manages to get the car in the air even if it's only to replace a sealed beam unit. He likes to "spot" underneath for defective mufflers, tail pipes, brake hose, broken or slipped springs.

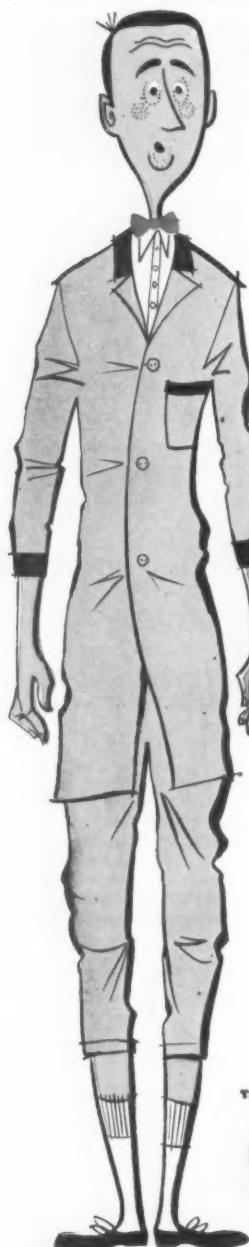
When necessary, our selling is picked up by the cashier, who is trained to talk like this: "We are sorry, Mr. Doe, that we could not reach you today, but this note on your repair order states that your car's master cylinder is leaking and should be corrected. Can you return tomorrow or may we pick it up and make the necessary repairs?"

There are times in our shop when the customers are piling in so fast that the service advisor can't spend much time "spotting." We overcome this by having a "P.M. Inspection" as we call it. Using a special preventive maintenance form, he inspects each vehicle which is awaiting its turn in the shop and lists the items that may require service. These forms are in duplicate so that if the owner cannot be reached by phone during the day, a copy is attached to the repair order and the original is given to the service advisor so he can discuss it with the owner at some future date.

Many people ask me, "How do you keep so many people coming into your shop?" Good direct mail, seasonal specials, prizes of one sort or another,—all of these help. We do one thing, however, that gives us a marvelous chance to do a lot of "spotting" and a lot of selling and that is this:

Everytime we sell a new car, we give the owner a free lubrication card for the life of his car as long as he owns it. This doesn't cost so much, but it brings the owner back to your

(Continued on page 131)



### KENDALL LUBRICANTS

## SHRINK INVENTORY COSTS!

### SAVE YOU SPACE, TIME AND MONEY

**Kendall SuperB Motor Oil** — All-Weather SAE 10W-30. Provides all essential requirements to effectively lubricate the most advanced passenger car engines. Eliminates pre-ignition and detonation "ping" and valve lifter sticking. A consumer proven product that reduces need for stocking several SAE grades.

**Kenlube B-521 Multi-Purpose Grease** — Recommended for ball-joint suspensions, chassis lubrication and many other applications. Features amazing resistance to shock, heat, water corrosion and oxidation. Speeds, simplifies application; reduces inventory.

**Kendall Three Star Gear Lubricant** — The only All-Weather All-Purpose SAE 80-90-140 gear lubricant. Unique and unmatched for over 16 years. Saves lubrication time; reduces equipment investment; helps make inventory problems a thing of the past.

Plus a full line of specialized lubricants and greases for every automotive requirement.



**KENDALL  
REFINING COMPANY**  
BRADFORD, PENNA.

*Lubrication Specialists since 1881*

## Sell the Tire . . . . . Continued from page 65

there any complaint about product.

A prospect drops by to look at tires. Daughtery never mentions price. Instead, he launches right into a product sales pitch.

Daughtery never overlooks the fact that 99 prospects out of a hundred have heard all types of stories concerning tires. And they can very glibly talk 100 round, thread count, traction, and warranty. Trouble is, they do not understand or know, exactly, what they are talking about.

Daughtery leads off by talking the beauty of the tire tread. He can get most prospects to agree to that. Then, instead of mentioning, he shows the depth of the rubber on a cutaway section. Then he shows how pliable and flexible this makes his tire.

Because he is not showing a price tire, he tells his prospect the Nylon thread count which is high, and Nylon exclusively.

Never once does he knock another manufacturer's product. There is a sound reason for this. Any time a tire salesman knocks another make of tire, it's a knock against tires, which he is trying to sell. A knock raises doubt in a prospect's mind. And doubt leads to indecision. This leads to the prospect walking away with a promise to come back later.

In selling tires, the sale is made NOW. Or it is never made. The prospect came in to buy a tire, or tires. If the sale can not be closed before the prospect takes off, time and effort has been wasted.

This fact explains why Bailey's always have a representative stock of tires on hand. Sure, their factory distributor is only located a few miles down the highway in El Paso. The order could go long distance and the tires at Bailey's within two hours. That would be too late.

A tire prospect wants to deal

NOW. And be assured he will buy his tires that day . . . because his mind was made up to that before he ever started scouting tires.

The sales pitch—the information coming from the manufacturer's manual—has sold the product. And do not lose sight of the fact very few prospects have any complaint regarding the tires they are now riding on.

This leads up to the friendly manner that Daughtery employs during his sales pitch. The sales pitch, after all, is the opportunity to warm up to the customer. (It is not intended to soften up a prospect as some tire salesmen hope.)



To emphasize a point, we will assume that the prospect is only interested in the purchase of one tire . . . and a recap at that.

This 6.70 x 15 recap is priced at \$12.50 with an exchange. And this exchange must be in perfect shape for recapping (meaning the carcass must be in like-new condition).

The prospect knows he can beat that price. But he will not beat it by more than \$2.50. All the "talk" about the tire situation is in Bailey's favor. The prospect has already been warned that if his trade-in has a weathered carcass, it will not be acceptable. Right away, he naturally assumes that the recap he

is buying had a first rate carcass on the go-in.

And in this respect, Daughtery sticks to what he said. Before a deal is made, the trade-in is fully inspected, and if in anything but first class condition, the deal is off.

On this deal, the shop will only make \$4.00. Bailey can not see any point in swapping dollars. To come out, he has to have a trade-in his recapper will accept for full allowance.

Aside from that, supposin' Daughtery let a prospect get by without a thorough inspection of the trade-in. The first reaction would be that he got the best of it . . . but on second thought he would begin to wonder. And he would ask himself if, after all, he hadn't bought a recap with enough pad to take care of the faulty trade-in. And the more he wondered, the more he would convince himself he had bought an inferior recap . . . and who got the best of who?

It probably took Daughtery a full 30 minutes to sell that recap which grossed him \$4.00.

Bailey mentioned he would like to sell tires all day and gross \$8.00 an hour. But the initial sale was beside the point.

The initial sale, if handled right, is what makes regular customers. 80 percent of Bailey's tire sales are made to regular customers.

### Amounts to Promise

Bailey, after 30 years at it, has found that when a dealer says something, it amounts to a promise, and the dealer had better back up his promises.

When he shows a prospect that he means what he said about the condition of trade-ins, the prospect believes Bailey's will live up to their end of the war-

(Continued on page 128)

**The man who gets pleasure out of his chosen work has a vacation every day of his life.**

For a tight grip  
in tight places...



The "Mighty Midget"

CHAN NEL LOCK  
No. 424

This "mighty midget" is a natural for a tight grip on small work in hard-to-get-at places. Only 4-1/2" long . . . drop forged from high grade steel. Four exclusive Channellock precision grooved jaw adjustments . . . capacity to 1/2". Skilled mechanics say it's one of the handiest pliers in their kits. You'll say so, too!

CHAMPION DARMENT  
TOOL COMPANY  
MEADVILLE, PENNSYLVANIA

ASK YOUR TOOL SUPPLIER  
FOR A CHANNELLOCK No. 424



Be sure it's a genuine CHANNELLOCK  
Look for the trademark on the handle.

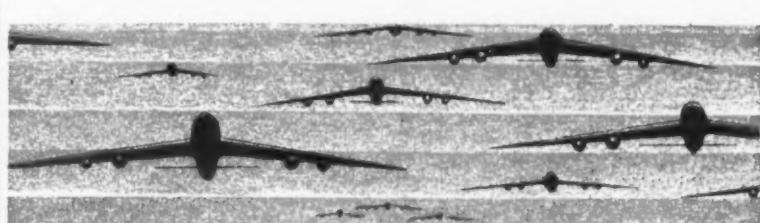
Sell the Tire . . . . . Continued from page 127

rancy. And regular customers know this to be true. For that reason, when Bailey's have switched lines, they never lose a customer.

Customers who Bailey doesn't know personally and ask for a time payment set-up, their credit application is taken and turned over to a local bank. If the bank will not accept the risk, Bailey will not take the risk himself.

Bailey does handle a big percentage of his own paper, and in the past 4 years has had only one default, he reported.

In selling tires, Mr. Bailey concluded, can be summed up this way: "Operate your own business, and let competitors operate theirs. Too, if an operator isn't smart enough to operate his own business, his customers will do it for him."



BIG FOUR LEADS AGAIN WITH EFFECTIVE

## AIR POWER

Through your finger tips flows the strength of a Hercules when you use Big Four's new Henderson Model P-58 with POWAIR-PAK. Never in history has tire changing been so effortless, so safe to the operator, so easy on the tire.

Yes, you'd expect Big Four, pioneer in tire changing machinery, to come up with so revolutionary a development. For the new POWAIR-PAK harnesses air pressure from your regular compressor to make child's play of breaking the most stubborn beads.

Expensive? Here's the most amazing part of the story. The new Model P-58 with POWAIR-PAK costs only a few dollars more than the average tire changer. And best of all, you will be able to buy the POWAIR-PAK alone to fit older model Air-lock Changers.



**FINGER-TIP CONTROL**  
It's as easy to work as the automatic shift on your car. Position No. 1 locks the rim. No. 2 breaks the beads. No. 3 releases rim or operates balancer.



Honestly, it's child's play. This little ten-year-old girl actually broke the beads on a stubborn 14-inch tire.

MODEL P-58 WITH POWAIR-PAK only \$7.20 per month on easy Pay After Profit Purchase Plan (after 10% down payment). (POWAIR-PAK available to fit older Henderson Air-lock Changers). Four other models priced as low as..... \$129.00 Slightly higher west of Rockies.

Write for a demonstration at your door in a Big Four Mobile Showroom. No obligation.



**BIG 4 INDUSTRIES, INC.**  
Dept. N, 5938 Carthage Court,  
Cincinnati 12, Ohio

U. S. Patents: 2,534,515 — 2,609,038 — 2,609,039 — 2,655,985. Other U. S. and foreign patents pending.



CRAWFORD H. GREENEWALT

## "\$22,800,000 Invested in U.S. Savings Bonds During First Year of Thrift Plan..."

"Du Pont employees are saving about \$23,000,000 each year in U.S. Savings Bonds through the Thrift Plan established by the Company in 1955. Well over 60,000 du Pont people now are purchasing U.S. Savings Bonds through payroll deduction on a regular monthly basis."

**CRAWFORD H. GREENEWALT,  
President, E.I. du Pont de Nemours & Co., Inc.**

Here's how the du Pont thrift plan works: Employees save part of their earnings each month by payroll deductions to buy U.S. Savings Bonds, and the Company contributes one-fourth as much to buy du Pont common

stock for them. The bonds are held for them by a bank and are delivered to them in annual installments, beginning four years after they join the Plan. The bank also delivers shares of stock to them when they are due.

Large or small, every company can give their employees the advantages of the Payroll Savings Plan. Installation of the Plan is simplicity itself. A Treasury representative will give you all the assistance you need to introduce the Plan or build enrollment in an existing Plan. Write: Savings Bonds Division, U.S. Treasury Department, Washington, D.C. for complete information.

The United States Government does not pay for this advertisement. The Treasury Department thanks for their patriotic donation, the Advertising Council and Motor Age



# Service vs Sales . . . . . Continued from page 49

internal work without having to sacrifice customer labor?

It isn't hard to increase income from the shop, provided the dealer realizes its importance and devotes a proportionate share of his time to managing this activity. Too many dealers now leave it entirely to their service managers. That is not the way to have a thriving shop. The best service managers need the counsel and advice of the dealer from time to time.

The dealer himself should have the interest in his service department to analyze comparative figures. For example: NADA composite figures, local zone composite figures, and available figures from nearby dealers. This helps us determine whether his own service department is average, below, or above.

Then the dealer can set the right objectives for his service manager to work toward. The following average figures are very important to the service operation:

1. Number R.O.'s per day.
2. Amount dollars per R.O.
3. Number items per R.O.
4. Number R.O.'s per service salesman per day.
5. Amount dollars per service salesman per day.
6. Amount mechanics hours not sold per day.

The dealer should know these figures on his own service operation. He should know, also, comparative figures from other sources. All are guides for the service manager.

The future of the new car dealer service business seems to be a diminishing market as far as major repairs are concerned. I make, of course, the exception of truck business and some rural areas where high mileage cars are kept in service.

Engine overhauls have almost disappeared; clutch work, transmission jobs and differential

overhauls are at a minimum. Most of this decrease is due to longer life built into these units by the manufacturer. Also better lubrication. Better motor oils. More education on the part of the owner for proper maintenance. Freeze-ups and cracked blocks are almost unheard of because of information available to owners through radio and television.

## Promote Maintenance Sales

To replace this loss of gross profit we are going to have to promote the sales of maintenance items. This includes brakes, tune-ups, appearance

cover sales, radio and heater sales, floor mats, mirrors, etc., that we lost to the chain stores over the past 10 years.

Every dealer should use a daily operating control for the service department. He needs a breakdown for mechanical repairs, body and paint shop work, washing, lubes, parts and accessory sales.

To determine the gross profit, know the amount of customer labor. This will average out at better than one dollar gross profit for each dollar customer labor. For some dealers this will average as high as \$1.30 for each dollar customer labor. There are certain factors which have a bearing on this: control on labor costs, high parts sales, accessory sales, etc.

The dealer who uses this approach in appraising the results of his service manager would be talking in terms of gross profit. This should encourage service personnel to contribute to the success of the over-all operation. Not in the sense that they are absorbing a certain part of or all of the overhead, but on the basis that the service end of the business is a PROFIT-MAKING department.

In other words, if your service department writes \$10,000 customer labor it has earned a minimum of \$10,000 gross profit.

Following is a breakdown [See charts on page 49] of gross profit for 10 months of 1957, showing the sales department gross vs. the service department gross. These figures are taken from a single dealer in M.P.C.

An analysis will show that the service department gross was a very important factor in the success of this dealership in every month but February and August. These months average 44.1 percent of the total gross profit.

Dealer A could not survive without the income from the service department. According to the figures, the service department was just as important



conditioning, steering and front end maintenance, radio repairs, body and fender repairs and painting.

This also means that the amount per repair order is going to decrease. To keep up over-all volume, the number of repair orders written will have to increase.

## Reclaim Lost Sales

We are going to have to make every effort to bring back the battery sales, tire sales, seat

as the sales department, even though neither of them would be able to carry the entire expense alone.

Dealer B, with better control on expenses, was able to carry 90 percent of the expense with his sales department profit, which was very good. He also had a nice income from the service department which reflects a substantial profit for the whole operation.

Dealer C has trouble: low car profit, high overhead expense and low service department income. Unless he makes some changes in his operation he will go out of business.

#### Are You Complacent?

The University of Pittsburgh, in a recent survey of why a business fails, said that the main reasons for failure were due to managerial laziness and complacency.

The university also said that the difference between firms that made the grade and those that didn't was that the failures were guilty of poor financial and sales planning as well as general administrative deficiencies.

The following averages can be used as a guide by dealers in analyzing their service departments:

1. The potential number of repair orders each month should be one half the number of cars under five years old sold by the dealer.

2. Percent of gross profit on customer labor should be 50 percent.

3. In most dealerships, parts on repair orders should average from 65 percent to 75 percent of customer labor for passenger cars and somewhat higher on commercial vehicles.

4. Total parts department sales minimum should be 100 percent of customer labor.

5. In the average dealership, the total salary and wage group is about 50 percent of the total overhead expense.

6. The total of the other semi-fixed expense group generally averages about 25 percent of the total overhead expenses.

7. In average dealerships, the amount of fixed expenses makes up about 25 percent of the total overhead expense.

8. Maximum total overhead expenses—less than 10 percent of total sales.

### Safety Foundation Presents Grant

A check for the first installment of an Automotive Safety Foundation grant to the Inter-Industry Highway Safety Committee was presented recently at a joint luncheon with the 41st annual convention of the National Automobile Dealers Association.

The presentation was made by General Levin H. Campbell, Jr., Chairman of the Board, Automotive Safety Foundation, to Inter-Industry Committee Chairman H. D. Tompkins. Mr. Tompkins is Vice President of The Firestone Tire and Rubber Co.

### GM "Aim to Live" Contest

General Motors' "Aim to Live" campaign, aimed at reducing night fatalities, is winning the endorsement of public officials and safety leaders reactions have indicated.

The campaign, announced January 8 by GM President Harlow H. Curtice, is designed to educate the public to proper aiming and inspection of headlights, and to safe night driving practices. Last year's night driving fatalities amounted to more than 20,000.

The National Safety Council gave the GM-led program its "commendation and support." Governor Abraham A. Ribicoff of Connecticut predicted that adoption of "Aim to Live" recommendations would save lives.

### Shop Spotting . . . . .

Continued from page 126

shop, where you can "spot and sell." Through this one medium, we keep four lube racks busy all the time. By "spotting," we sell lots of 10,000 mile or once-a-year lubrications at \$6 plus, and 20,000 mile or once-every-two-years at \$12.50 plus, with total returns from this department of about \$2,500 per month.

#### Repair Order Average High

I can't tell you how much more per man we produce by our "spotting and selling." I do know that our repair orders consistently average over \$12 in labor alone. And I know that is well above the average of Chrysler Corporation dealers. I also know that our labor volume has shown a consistent growth, in proportion to the number of owners in our territory.

So I can say positively that selling that "extra job" has paid off in our service department, and I know other good shop operators who report the same thing.

Good, honest, cheerful service must be performed to keep your customers coming back. Once they are back, put that salesmanship to work and watch those shop profits climb.

Your dealership's future may well depend on the job done in your service and parts departments in the future. When you realize and admit this fact and devote your own time to train your service personnel to sell, sell, and sell, you have arrived as a dealer. Remember, to survive the future critical years, you must Sell, and you must Serve. May all of you survive and prosper the rest of your days.

**The winner of any argument is the man who knows when to quit.**

# Calendar Of Coming Events

## Dealers Conventions

Feb. 23-24, 1958 — Louisiana Automobile Dealers Assn., Inc., Roosevelt Hotel, New Orleans.

Apr. 10-11 — Illinois Automotive Trade Assn., Springfield, Ill.

Apr. 27-29 — Automobile Dealers Assn. of Alabama, Buena Vista Hotel, Biloxi, Miss.

May 5-7 — Joint Convention, Washington State Automobile Dealers Assn. and the Motor Dealers Assn. of British Columbia, Empress Hotel, Victoria, B. C.

May 8-9 — Oregon Automobile Dealers Assn., Eugene Hotel, Eugene, Ore.

May 11-13 — Idaho Automobile Dealers Assn., Lewiston, Idaho.

May 11-14 — 36th annual convention, Automotive Engine Rebuilders Assn., Sheraton-Park Hotel, Washington, D. C.

May 12-13 — Pennsylvania Automotive Assn., Haddon Hall Hotel, Atlantic City, N. J.

May 18-20 — Texas Automotive Dealers Assn., Galvez Hotel, Galveston.

June 8-9 — Automobile Dealers Assn. of Indiana, Mirott Hotel, Indianapolis.

Aug. 17-18 — Georgia Automobile Deal-

ers Assn., General Oglethorpe Hotel, Savannah.

Sept. 7-8 — Colorado Automobile Dealers Assn., Antlers Hotel, Colorado Springs.

Sept. 7-9 — Wyoming Automobile Dealers Assn., Lander, Wyoming.

Sept. 14-16 — Michigan Automobile Dealers Assn., Pantlind Hotel, Grand Rapids.

## Automobile Shows

Feb. 15-24 — Columbus Automobile Show, Franklin County Veterans Memorial Bldg., Columbus, Ohio.

Feb. 16-22 — Syracuse Auto Show, Syracuse, N. Y.

Feb. 19-23 — 8th Annual National Auto-rama, Conn. State Armory, Hartford, Conn.

Feb. 21-23 — Cheyenne Auto Show, Frontier Pavilion, Cheyenne.

Mar. 1-9 — Kansas City Auto Show, Municipal Auditorium, Kansas City, Mo.

Mar. 6-9 — Asheville Auto Show, City Auditorium, Asheville, N. C.

Mar. 26-30 — Imported Auto Show, Civic Auditorium, Seattle.

Mar. 26-30 — West Texas National Auto Show, Municipal Coliseum, Lubbock.

Apr. 5-13 — International Auto Show, New York Coliseum, New York.

## General

Feb. 18-19 — Motor & Equipment Wholesalers Association convention, Statler Hotel, Los Angeles.

Feb. 18-19 — National Standard Parts Association convention, Ambassador Hotel, Los Angeles.

Feb. 20-23 — Pacific Automotive Show, Pan Pacific Auditorium, Los Angeles.

Feb. 27-28 — American Petroleum Institute Div. of Marketing, Lubrication Committee meeting, Sheraton-Cadillac Hotel, Detroit.

Mar. 31-Apr. 2 — Canadian Automotive Wholesalers & Manufacturers Assn. convention, Royal Alexandra Hotel, Winnipeg, Manitoba.

Apr. 23-25 — 1958 Spring Booth Conference of Automotive Wholesalers and Manufacturers Representatives, Bon Air Hotel, Augusta, Ga.

May 11-14 — Annual Convention, Automotive Engine Rebuilders Assn., Sheraton-Park Hotel, Washington, D. C.

May 15-18 — 1958 National Truck, Trailer & Equipment Show, Great Western Exhibit Bldg., Los Angeles, Calif.

May 21-23 — American Petroleum Institute Div. of Marketing, midyear meeting, Roosevelt Hotel, New Orleans.

June 15-16 — Automotive Wholesalers Association of Alabama convention, Birmingham.

Aug. 17 — 21st All-American Soap Box Derby, Akron, Ohio.

## Change TUBELESS TRUCK Tires

Faster...

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**T-45**

Busses  
Trucks  
Tractors



T-45

SEE YOUR JOBBER!

SAVE LABOR, TIME AND MONEY. INSIST ON KEN TOOLS. Finest Quality and Design. Largest Exclusive Mfrs. of Tire Changing Tools and Equipment.

**The KEN-TOOL Mfg. Co.**  
AKRON 5, OHIO

## GM President Looks At '58

Harlow H. Curtice, president of General Motors, issued the following year-end statement.

"The outlook for the economy in 1958 is difficult to appraise at the present time. As we try to look ahead an all-important factor in the business picture is confidence — confidence on the part of both business and the consumer. For various reasons confidence at present seems to be somewhat shaken and an attitude of caution appears to prevail. This can have a substantial effect on the level of economic activity.

"While consumer and business spending have been at record levels, both have eased off somewhat in recent months. This trend may well continue for the first half of 1958. But other factors—notably the recent Federal Reserve Board action in lowering the rediscount rate, and the expectancy of increased expenditures for defense—may result in an upturn during the second half of 1958. Taking all factors into consideration it is my belief that on balance 1958 can be a year of good business generally.

"As to the outlook for our industry in particular, all signs point to 1958 as another year of intense competition. It appears likely that 1958 domestic retail passenger car sales, exclusive of imports, will be somewhat lower than the 1957 total of approximately 5,800,000 units. Currently, retail sales of new 1958 passenger cars in the domestic market, again exclusive of imports, are at an annual rate of 5½ million units. If this is indicative of the 1958 sales level, it would still represent a good volume of business for the industry. The picture would improve should an upturn in business in the second half materialize."

1958 JANUARY 1958



## Ever wish you could back up into yesterday?

CHANCES ARE there are times in your business life when you remember something you should have done yesterday—like ordering auto replacement glass, for instance.

Although Pittsburgh Plate can't deliver your Safety Glass yesterday, it can deliver it within a matter of hours. Your Pittsburgh Branch or Distributor can supply you with glass to fit any car or truck—any make, any model—so quickly that there's no

need to crowd your storage space with large inventories. Normally, in 24 hours or less, the Pittsburgh Safety Glass you want can be in your shop, and your customer can be completely satisfied.

Pittsburgh's facilities give you the fastest possible service on DUPRO<sup>®</sup>

and DUOLITE<sup>®</sup> Safety Glass and HERCULITE<sup>®</sup> Tempered Plate Glass—curved or flat, clear or SOLEX<sup>®</sup>. For more complete information, just contact your nearest Pittsburgh Branch or your Distributor. Pittsburgh Plate Glass Company, 632 Fort Duquesne Boulevard, Pittsburgh 22, Pennsylvania.



television on Thursday nights

7. Last October your car skidded on a wet road and grazed a telephone pole. The damage was not covered by insurance and it cost you \$100 to have the car repaired. To claim a casualty deduction . . .

- (a) You must have the damage repaired within 30 days of the accident
- (a) You may simply deduct the amount of the repair bill
- (c) You must prove that you were using the car in your work at the time of the accident

8. Which of the following may you *not* consider as a deductible business expense . . .

- (a) A subscription to (insert the name of your trade publication)
- (b) Commutation fees
- (c) The costs of attending the (insert the name of a trade) convention

9. While playing hide-and-seek in your backyard, the neighbor's children trampled and killed several of your more expensive bushes. The cost of replacing this shrubbery . . .

- (a) May be deducted if it does exceed the original cost of the bushes
- (b) May be deducted only if the parents of the children refuse to pay damages
- (c) May not be deducted under any circumstances

10. Your 16-year-old son works during the summer for you in your unincorporated business, and you pay him a weekly salary. Since he is a full-time employee, he is . . .

- (a) Required to pay social security
- (b) Not subject to social security
- (c) Permitted to decide whether he does or does not want social security cover-

age

11. Last year you gave your church a small piece of property for which you had paid \$500 some time ago. Its value at the time of the gift was \$1,500. As a result . . .

- (a) You may claim a tax deduction of \$1,500
- (b) You may pay a capital gains tax on the \$1,000 increase
- (c) You may claim a tax deduction of \$500

12. There were a few leaks in the shingle roof of your office building; so you constructed a new tile roof. You should . . .

- (a) Consider this as a repair bill and deduct the entire amount as a business expense on your 1957 return
- (b) Regard this as a capital improvement and depreciate the cost over a period of years
- (c) Add the cost of the repair to the value of the property

13. After you have filed your personal 1957 tax return, the Government is allowed to check your return and bill you for additional tax. The period of time in which this may be done ends . . .

- (a) On the day you file your 1958 return
- (b) Two years after you file your 1957 return
- (c) Three years from the due date of your 1957 return

14. On the advice of a friend, you engage a CPA to prepare your 1957 tax return. The fee he charges for this service is . . .

- (a) Not deductible since it is a personal expense
- (b) Not deductible if you are entitled to a refund
- (c) Deductible in full

## Answers to Tax Quiz on Page 98

1. (b) On leased property, you normally spread the cost of improvements over the shorter period—the life of the improvement or the term of the lease. Since your lease expires in four years and presumably the furnishings will have a longer life than that, you should be able to claim a \$250 deduction on your federal tax return for this year and the next three years.

2. (c) The money you received from the company must be reported as income, but you may deduct the cost of moving your entire family. If the amount the company gives you exceeds your expenses, the excess is taxable. Conversely, however, if your expenses were more than the amount received, the difference is not deductible.

3. (a) and (b) are both correct. All taxpayers are entitled to a \$50 dividend exemption. A husband and wife can combine their exemptions and receive \$100 in dividends tax free, providing the stock is jointly owned. The filing of a joint return will not qualify them for this double exemption if the stock is held in only one of their names.

4. (c) You cannot deduct contribution to an organization which spends a substantial part of its time lobbying or distributing political propaganda.

5. (a) You gained a son-in-law but lost a \$600 dependency exemption for 1957 when your daughter married in November. All is not lost, however. If you provided more than one-half of your daughter's support during the year, you may claim her medical expenses as a deduction on your return.

6. (c) Watching television can be most relaxing and it might even help you to forget your poker losses—which is the thing to do because net gambling losses are definitely not deductible. Net gambling gains are taxable as income; so if you won money in

Some people spend their time making money—others spend their money trying to avoid doing time.

a football pool or other sources, you may use your poker losses to offset these gains.

7. (b) The IRS has ruled that "if the repairs do nothing more than restore the property to its condition immediately before the casualty and do not add to (its) value, utility or useful life, such repair costs may be used as a measure of the value of the destroyed portion." Where you were going at the time of the accident does not affect the deductibility of car damages.

8. (b) Commutation fees are not a deductible business expense. The cost of going to and returning from work, whether it be by bus, cab, train or plane, is not deductible since it is a personal expense. On the other hand, a and c are deductible.

9. (c) Damage to your shrubbery caused by children, dogs or errant lawnmowers is not deductible. If your home or lawn is damaged by fire, storm or flood the loss not covered by insurance may be deducted. When large amounts are involved it is wise to have an expert appraisal made immediately after the casualty.

10. (b) Since your son works for you, you are not supposed to pay social security tax on his wages, nor is he required to make contributions. If your business is incorporated, however, the corporation must pay social security tax on his salary.

11. (a) Your deduction for a charitable contribution is the value of the gift at the time it is made. You are not considered to have realized a taxable gain or deductible loss when you give property away. You may claim a deduction for the entire \$1,500 so long as this amount does not exceed 20 per cent (30 per cent in some cases) of your adjusted gross income.

12. (b) The roof is considered an improvement, not an ordinary repair. The cost of replacing the roof is deductible as depreciation spread over its estimated

useful life.

13. (c) In the absence of fraud or substantial understatement of income, the Government has three years from the due date of your 1957 return to check your return and bill you for additional tax. Since the due date of most individual returns is April 15 and for investigation purposes all returns are treated as though filed on the due date, you should be sure to save all check stubs and receipted bills to prove your declared deductions until April 15, 1961.

14. (c) The fee which a CPA charges you to prepare a tax return or defend the accuracy of your return before the Treasury Department is deductible in full if you itemize deductions.

## Safety Parley Set for April

The automotive industry and the Governors Highway Safety Committee will hold a conference on traffic safety in Detroit, April 10, 11 and 12, George W. Romney, president of the Automobile Manufacturers Association announced.

The Highway Safety Committee of the Governors Conference is a group of nine state governors, headed by Governor Abraham A. Ribicoff of Connecticut.

"The purpose of the meeting," Mr. Romney declared, "will be to provide an opportunity for governors and the industry to exchange views and information on all phases of highway safety."



## Edsel Sales Rise

Edsel sales showed an 18.6 per cent increase during the first 10 days of January, as compared to the same period of December, according to J. C. Doyle, general sales and marketing manager.

Preliminary reports going into the second 10 days of January show the same upward trend in Edsel's selling rate. Normally sales in the second 10 days of a month exceed those of the opening period.

---

*The mechanic put a bottle of Scotch in his pocket. On his way across the street, he was knocked down by an automobile. Picking himself up, he started to walk away when he felt something warm trickling down his leg.*

*"Gad," he thought, "I hope that's blood."*

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## Mechanics Course Given by UMS

During 1957 more than 40,000 automobile mechanics took advantage of free training offered by the United Motors Service Division of General Motors, it was announced by Roland S. Withers, United Motors general manager.

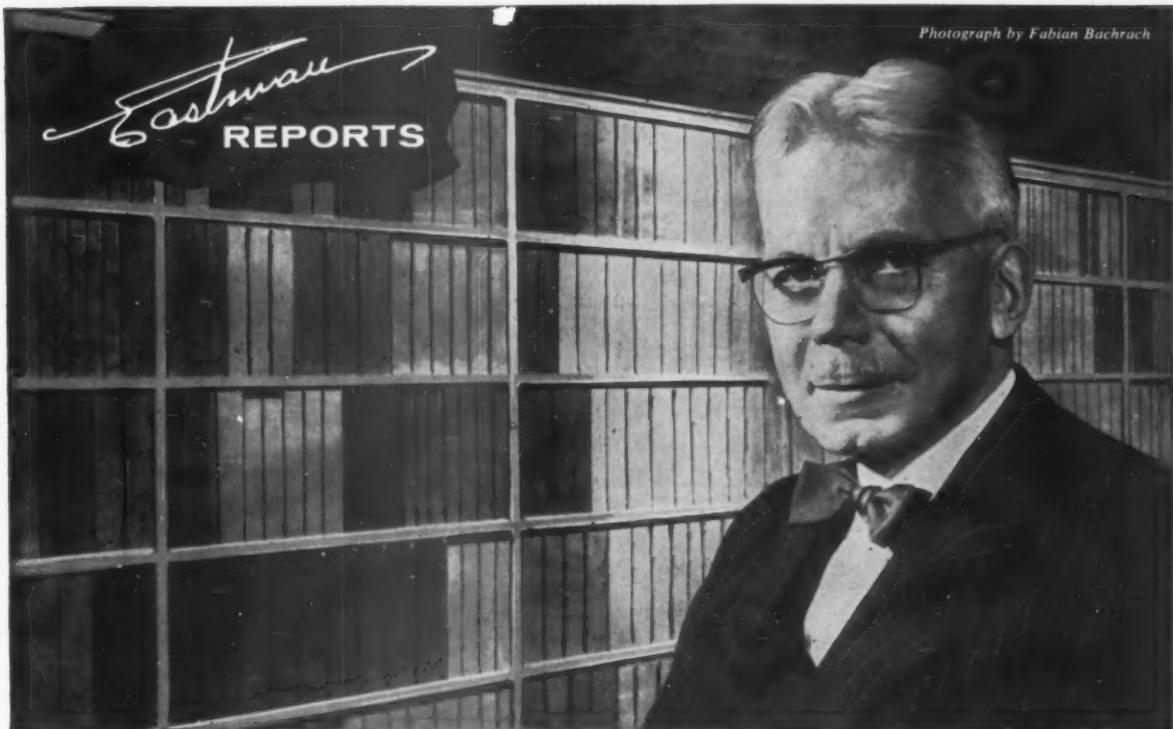
"The shortage of trained technicians is a serious problem for those of us in the automotive replacement parts business and the motoring public," Withers said. "United Motors attacks the problem in two ways, through our regular classes held each week-day in the 30 General Motors training centers across the country, and through classes conducted by our field personnel in U-M-S distributorships in the evenings."

Last year 11,755 mechanics attended training classes held in centers for a total of 346,546 hours of instruction. In addition, 28,680 mechanics attended 1,279 evening classes held in United Motors distributorships.

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This Advertisers' Index is published as a convenience, and not as part of the advertising contract. Every care will be taken to index correctly. No allowance will be made for errors or failure to insert.

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Eastman's confidential Editorial Research Reports to publishers prove that readers find advertising in Business Publications as interesting as editorial material. The full Eastman release on this subject is available to you on request.

## "70% of Advertisement Reading in Business Publications is intentional—not accidental"

says ROY EASTMAN of the Eastman Research Organization

"Why shouldn't it be," Mr. Eastman continues, "since Business Publications advertise the very things by which readers make their livings?"

"A year and a half ago, we injected into all of our confidential readership surveys a penetrating inquiry as to *how* the advertising was read

"The overall results of a year's inquiry on this subject (32 surveys for 18 publications) show that the average exposure to advertising is *70% intentional*, only 30% accidental.

"Moreover, 94% of the readers of these publications, on the average, reported that they gave conscious attention to the advertising."

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Write for a list of the NPB publications and the "Here's How" booklet, "How Well Will We Have to Sell Tomorrow?", written by Ralston B. Reid, Advertising & Sales Promotion Manager of the Apparatus Sales Division, General Electric Company.



# THE LAST

# LAFF



Three young urchins are playing in a gutter in London's slums. A Rolls Royce stops and a beautiful, expensively dressed blonde steps out, crosses over to the boys, picks up the youngest, hugs him and leaves a box of candies, toys and fills his hands with money. Waving good-bye, she gets into the car and departs. The other two boys are goggle-eyed.

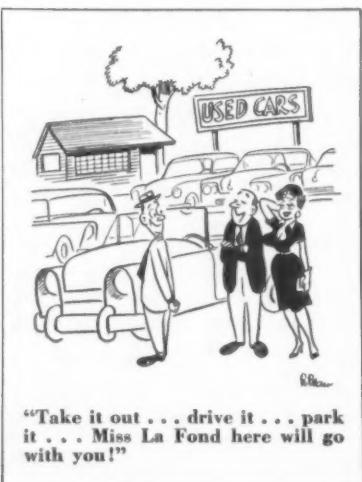
Then one says: "Gorblimey, Tommy, was that yer fairy godmother?"

The beneficiary looks at him with scorn: "Naw, that woz my sister wot woz ruined."

A lively chick taking a look around the electric incubator of unhatched eggs—"Well, it looks as if I'll be an only child. Mother's blown a fuse."

"I'm worried," remarked Tom, as he bellied up to the bar. "My wife hasn't spoken to me for three days and I can't for the life of me remember what I said to shut her up!"

We know of an overweight playboy who is unhappy about losing 105 pounds last month. She was a beautiful blonde.



He: "I just bought one of those cars of tomorrow and it's sure great. All you have to do is press a button on the dash-board and a beautiful blonde appears. You press a button twice and you've got a gorgeous blonde. Three times and it's a redhead."

Him: "That's for me, boy. Can you get me one?"

He: "The car?"

Him: "No, the button."

Mama: Willie, why did you kick Tommie in the stomach?

Willie: It was his own fault. He turned around.

A man should work eight hours, play eight hours, and sleep eight hours. But they shouldn't be the same eight hours.

Little Sammy: Daddy, why can't I go out and play baseball like the other kids?

Father: Shut up and deal the cards.

If you want to keep young, associate with younger people.

If you want to realize your age, try to keep up with them.

In an essay on "Things I am thankful for," a little boy listed "my glasses," explaining, "They keep the boys from fighting me and the girls from kissing me."

The first-grade teacher struggled with the last pair of stubborn galoshes. Three times already that day—once in the morning and twice at noon—she had helped 30 youngsters pull their tight-fitting overshoes on or off, as the hour demanded. As she gave the final tug, little Freddie remarked "These aren't mine."

The harassed teacher counted to 10, then extracted Freddie's feet. He watched the process in silence. When it was all over, he volunteered. "They're my sister's, but Mommy says I have to wear them today."

Pleading "not guilty" to a drunkenness charge, a man claimed he had had "only one drink."

"From a water glass or a bath tub?" roared the judge.



"I am not lazy—I'm just being calm in the face of disaster."

# Preferred

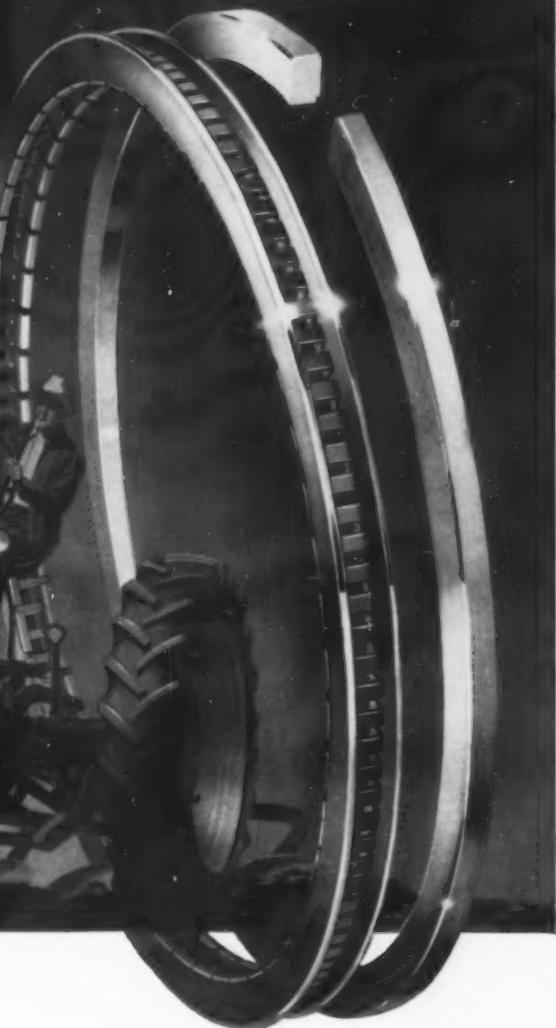
by more engine manufacturers  
for original equipment  
and replacement service  
than any other piston ring!



**INTERNATIONAL HARVESTER**—one of the leading engine manufacturers using Perfect Circle piston rings for both original equipment and replacement service.

Behind the world-wide preference for Perfect Circle is a history of more than half a century of PC engineering leadership—and more. There's a history, too, of unceasing creative research...a constant search for the new and the better...matchless manufacturing skills...and scores of contributions to the forward march of the automotive industry, year after year.

You benefit from the preference for Perfect Circles because PC piston rings are easier to sell. Customers like to know they're getting the brand of piston rings preferred by the manu-



facturers for original equipment and replacement service—Perfect Circles! And PC 2-in-1 Chrome sets more than *double* the life of cylinders, pistons and rings...seat faster because they are lapped in at the factory...mean sustained power with lasting oil economy. For satisfied customers, sure protection against overhaul come-backs, always install Perfect Circle 2-in-1 Chrome piston rings—the brand most people prefer! Perfect Circle Corporation, Hagerstown, Indiana; The Perfect Circle Co., Ltd., 888 Don Mills Road, Don Mills, Ontario.

*Since 1903...partner in progress to the automotive industry*

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... with Thermoid "Custom Built"**

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\*The only Brake Linings certified by The Pittsburgh Testing Laboratories.

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**Thermoid Hydraulic  
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Thermoid Company, Trenton, N. J.